



September — October 2010

## Progress on WAGR Es Locos

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### Your Committee

President	9446 4825
Andrew Manning	
Vice President	9409 2336
Ken Austin	
Secretary	9457 7175
Paul James	
Treasurer	
T.B.A	

### Committee Members

Ken Cooper  
 Tony Jones  
 John Shugg  
 John Turney

### AALS Competent Person

Andrew Manning 9446 4825

### Publicity & Events

Paul Costall

### Librarian

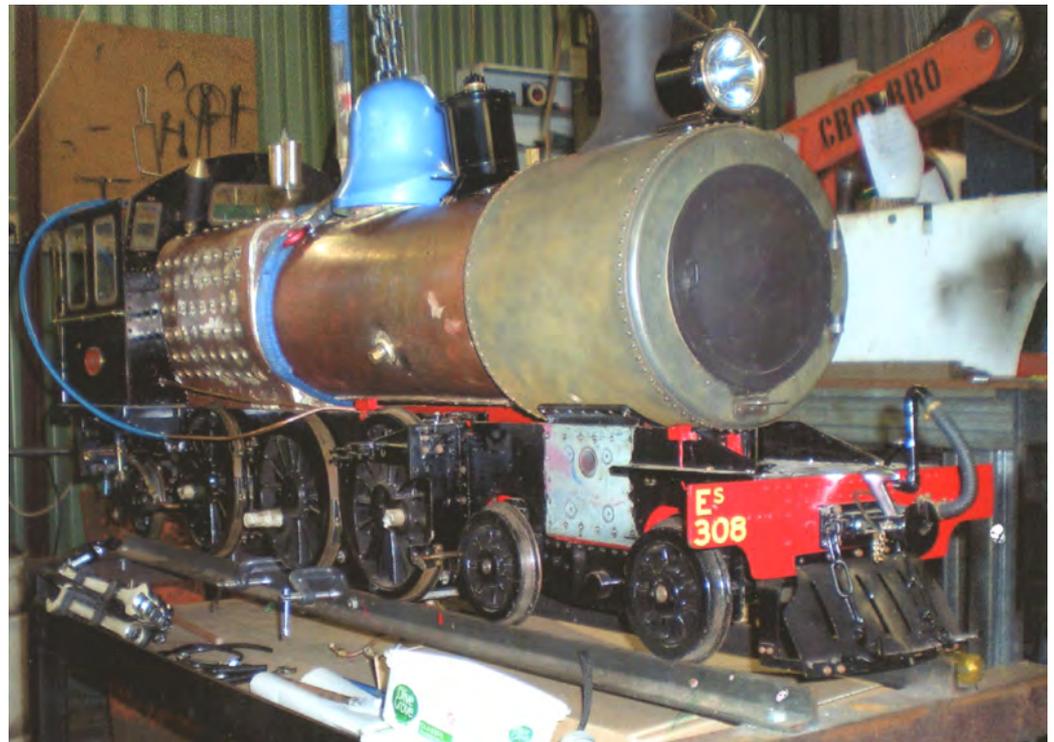
John Martin 9448 8843

### Newsletter Editor

Jim Clark 0407 988746

### Web Site

Laurie Morgan



These photos show the progress of two 5" gauge model WAGR Es class locos, currently being built by Ed Brown and John Hagarty.

The locos are nearing completion — we have had a few setbacks lately, although things have gone fairly smoothly to date.

Currently we are working on the tenders. Scale riveting is very time consuming, and we are getting there.

Above: Testing the axle pump on one of the two Es Class locos.

Photo: Ed Brown

The cylinders and valve motion are nearly complete as are the side rods.

Looking forward to another two years work towards completion, making a total of approximately five years altogether.

*(photos continued on page 8)* **John Hagarty**

## CALENDAR OF EVENTS

<b>Sandgroppers Weekend, Bunbury</b>	SWMEA Forrest Park, Bunbury	All day, plus evening meal on Saturday	Saturday 13 through Sunday 14 November
<b>Public Run Day</b>	Club Track Site Vasto PI, Balcatta	10:00 am — 2:00 pm	Sunday 28 November
<b>General Meeting &amp; Christmas Snacks</b>	Club Meeting Room Vasto PI, Balcatta	8:00 pm	Friday 10 December
<b>Club Run Day</b>	Club Track Site Vasto PI, Balcatta	9:00 am — 2:00 pm	Sunday 12 December

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## September General Meeting

The September General Meeting was held on Friday 10 September 2010 at the Lindsay Adams meeting room commencing at 8:00pm, chaired by Andrew Manning.

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

### General Business:

Subscription charge for 2010/2011 year. This was discussed and a decision was made to keep subs at \$130.00 for the coming year.

### Model Engineering:

**Peter Harding** showed a well made small engine name plate he had sourced from the east. He also displayed a set of laser cut frames for a Blowfly he has started making.

**Laurie Morgan's** 1½ inch scale Allchin Traction Engine was displayed and looked the part on top of the braked riding car he has made for the Mountaineer. He made mention that many parts were made from stainless steel and how difficult it was to drill and manufacture such small parts. Both projects are a credit to Laurie's fine workmanship and patience. He also mentioned the fine finish he had obtained through bead blasting using a relatively inexpensive locally purchased machine.

**John Martin** talked about how he had taper turned some shafting to fit some tapered gears from a metal cutting bandsaw he is rebuilding.

The meeting closed at 9:35 pm. Members enjoyed tea and coffee and a good yarn.

## October General Meeting

The October General Meeting was held on Friday 8 October 2010 at the Lindsay Adams meeting room commencing at 9:00pm following the AGM, and was chaired by Andrew Manning.

### Model Engineering:

**Alan Latino** showcased a 1952 built 3½" gauge Pacific loco he has recently acquired from the UK. He made mention that he has seen it running and there was also a tender. Alan requested members to assist in the initial running of the loco when the time comes.

**Laurie Morgan** displayed a small turbine that had been designed and built by 4th year engineering students at Curtin University. This project was started in 2005. Laurie discussed the principle of operation and several design features including the design and making of the blades. The turbine is started on gas and when hot runs on kerosene, is very noisy and rotates at very high speeds.

**Ken Austin** showed members a ball valve regulator he has made for a 7¼" gauge loco. The ball seals are made from a glass and carbon fibre PTFE composition which can withstand the high temperatures of 160psi steam. Ken also mentioned problems he had encountered with clack valve design and operation.

The meeting closed at 10:20 pm.

**Paul James, Secretary**

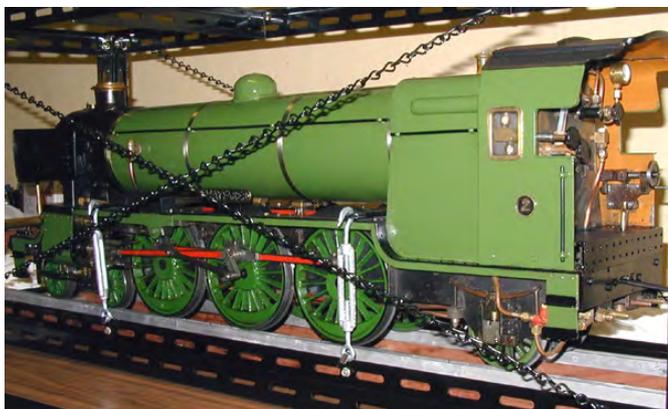
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## Club Loco Update

Thanks to David Naeser for his donation of a live steam injector for the Club Locomotive.

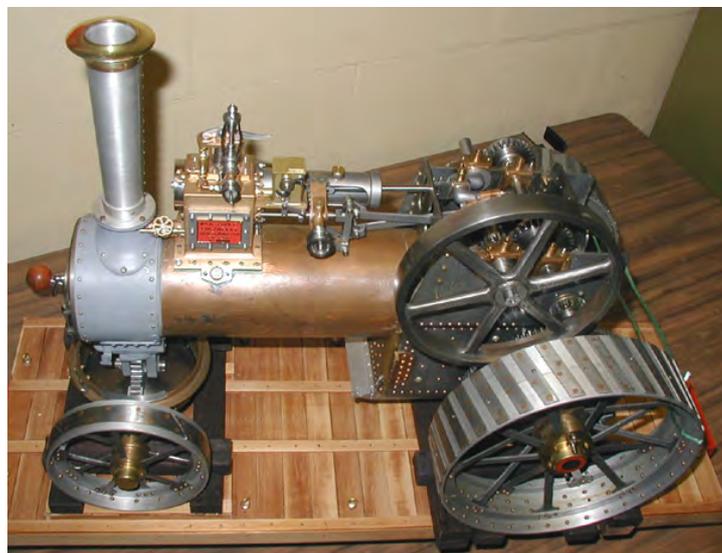
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## Photos of Model Engineering from Recent Meetings



Above: Alan Latino's 3½" gauge Pacific loco, which he has recently acquired from the UK, in its travelling frame.

Right: Laurie Morgan's 1½" scale Allchin traction engine  
Photos: Jim Clark



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# 2010 Annual Report of the Society

by Andrew Manning

The last year has been a really successful one for the Society — the level of member participation in Society activities is at an all time high, public run days are well attended by members and the public. Membership is growing, general meetings are well attended and the ground level track should be ready for revenue service in the next month.

The Society is in a sound financial position.

Over the last few months it has been a real treat to come to our grounds on work days or public run days and see the number of members out working on different projects around the grounds — track building, setting up points, making sleepers, installing point and signal wiring, mowing lawns etc, or just having a yarn.

The last public run day saw a great turn up of members and locos, such that there were plenty of drivers and station helpers and time for every one to sit back for a while and enjoy the day. There was also a work party ballasting track. The number of members attending the public run days has been increasing over the last few months.

A disappointment has been the uptake by members of the club run days. We do not seem to have the timing and advertising of these days right yet.

General meeting attendance has been sitting at around 22 members, encouraged by the show of work and the opportunity to discuss projects with fellow members and our boiler inspectors.

Our display at AMRA was outstanding this year and highlighted that we are a model engineering society with diverse interests.

Each month we seem to receive a new application for membership. Our membership currently sits at 51 and there are 3 applications on the table awaiting Committee review and election by members.

Membership services, in addition to the site facilities and our meetings, comprise the extensive, well kept library, Steamlines and our web site. Jim Clark re-established our own web site over a year ago at his own expense, but has not had time to extend it from the very basic site. Laurie Morgan, recognising the need, has volunteered to build up the web site. Progress to date is impressive. I would like thank Jim and Laurie for their respective efforts.

But for effort and drive, I have to take my hat off to Tony Jones. Tony is determined to get the ground level track completed as quickly as he can manage with his own efforts and those he can attract to the project. Tony's effort went so far as pulling a bed leveling plough along to form the sand bed for the inner circle.

I have tried to get Tony to slow down for his own wellbeing, but to no avail. Tony, I know I give you a hard time, but thank you from me and the members for your dedication to the GLT.

I could go on naming lots of members for their outstanding efforts over the last years but I would end up missing someone, so thank you all, your inputs are really appreciated and all contribute to the NDMES being such a great Society to be involved with.

The Treasurer will present a detailed financial report. (*This was distributed at the AGM.*)

The cost of keeping our building and grounds in a safe tidy state, without any growth, represents \$160 per member. The public run days and AMRA have underwritten all of our growth expenditure and 18% of our base costs. It should also be noted that some members of the Society have made very sizable contributions of material and commercial workshop time to Society projects, and I thank you on behalf of the membership.

As to the future, I am looking forward to having somewhere to run my Foden and to seeing the fleet of traction engines within the Society running regularly at the site. (I have been captive of the steel track too long.) The Community Shed will appear in the first half of next year as our southern neighbour and present us with a few opportunities.

The ground level track will have both the inner and outer circles completed and Tony will be more relaxed. Development and maintenance of our infrastructure will be ongoing to ensure a safe, serviceable and pleasant facility is maintained and enhanced.

I hope we can spend more time supporting other aspects of model engineering, and enjoying our facilities. If re-elected, I plan to start a discussion, with the help of John Turney and the Committee, on where members want the Society to go in the next few years.

We have all but achieved the planned grounds development laid down some 20 years ago.

Lastly I would like to thank members of the Committee for their commitment and time they have given to the Society over the last 12 months. In particular I would like to thank John Shugg our outgoing Treasurer for the outstanding effort he has put into the job of Treasurer over many years and as a member of the executive of the Society for more than 14 years. John will not be standing for re-election as Treasurer.

**Andrew Manning**  
**President NDMES 2009/2010**

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## Annual General Meeting

The Annual General Meeting of the Society was held on Friday 8 October 2010 at the Lindsay Adams meeting room commencing at 8:00pm, chaired by Andrew Manning. Full Minutes of the AGM are enclosed with Steamlines as a separate Supplement for members.

President Andrew Manning presented the Annual Report (*see page 3*).

Treasurer John Shugg gave a detailed financial statement for the financial year.

The office bearers for 2010/2011 are:

**President:** Andrew Manning  
**Vice President:** Ken Austin  
**Secretary:** Paul James  
**Treasurer:** Position vacant at this point.

**Committee Members:** Tony Jones, Ken Cooper, John Turney and John Shugg.

**Birthday Booking Coordinator:** Paul Costall.

The Annual General Meeting closed at 8:30pm.

## Community Shed Update

*The following update is taken from the Community Men's Shed newsletter, "Shavings & Sawdust":*

"Given that the shed should take about four months to complete and allowing for the Christmas break, we are hopeful that we will be completed by April 2011.

The site is as previously advised at Vasto Place, Balcatta, adjacent to the Northern Districts Model Engineering Society. The woodworking machines have been bought and are being stored by the generous chaps at Carba-Tec and we are hoping to have funding for some form of gardening equipment by the time we open.

The training room (8.8m x 4.3m) has much potential but nothing specific has been organised for this space yet. We hope to rent the space to various groups in order to fund our activities, as well as use it for training and meetings for the members."

There may well be some synergy between our Society and the Community Shed, given that some of our members also have woodworking and other interests that could be catered for by the Shed, and that some of those involved in the Shed project may be interested in what our Society has to offer. Some discussions on this have already taken place with our Committee.

The City of Stirling has appointed a full-time Community Men's Shed Coordinator: Mike Murphy, phone 9345 8456 during business hours if you are interested in further information on this project.

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## SUBSCRIPTIONS NOW DUE

If you have not already paid your annual membership subscription for 2010-2011, just a reminder that it is now due. The fee has been maintained at \$130 for the coming year and represents good value in the current economic climate where costs are rising across the board, not least of which are ever-increasing costs for your Society.

Please make your payment as soon as possible either by post, or in person through President Andrew Manning or Committee member John Shugg.

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## NEWS ITEMS WANTED

As always, I desperately need more items for Steamlines. The last couple of issues it has been touch and go whether I could keep it at 8 pages or have to reduce it down to 6, which I'm very reluctant to do.

Why leave it all up to the few stalwart correspondents — perhaps you have seen, been or done something of interest to other Model Engineers recently?

How about putting down a few words about your earliest experiences or about how you came to be interested in model engineering? For example, the recent series by Andrew Manning was, certainly for me, fascinating.

[jimclark@hardwareandsoftware.com.au](mailto:jimclark@hardwareandsoftware.com.au)

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

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## Birthday Bookings Update

I normally only send out a list to regular party-goers but I thought you may all be interested to see what is coming up. Actually it was Ron Collins' idea — no really!

Sunday 28 November — Run Day — Reserve rotunda for Birthday, Reserve table for Birthday.

Saturday 11 December — Birthday Party 11:00am to 1:00pm.

Sunday 12 December — BMX Super Series/State Titles.

Sunday 2 January 2011 — Birthday Party 1:00pm to 3:00pm.

Friday through Sunday 4-6 March 2011 — BMX State Championships.

If you can help out at any of these it would be much appreciated, or just come along for a social day out. Don't leave it all up to the same group to raise money for the Society, come along and have some fun.

**Paul Costall**

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## Sandgroppers Weekend & Traction Engine Rally

South West Model Engineers are hosting the Sandgroppers Weekend and the first “Western Australian” Miniature Traction Engine Rally, as recently advertised in AME, at their track in Forrest Park, Bunbury, over the weekend of 13-14 November.

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

If you haven't already registered for the Saturday evening meal, it's not too late to arrange to come down just for the day.

With the new Forrest Highway now open, it's an easy 2 hour drive to Bunbury. We hope to see you all there for what many consider to be the highlight of the Western Australian model engineering year!



Above: Ken Austin test steaming his magnificent Burrell traction engine in early October, in preparation for the Sandgroppers Weekend.

You can see this engine, along with many others, in action at the forthcoming Sandgroppers Weekend in Bunbury.

Photo: Jim Clark

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## Can Anyone Identify This Loco?



Maybe some of the members could identify this 5 inch scale loco for me. I bought it from a man in Bega who bought it from the man who made it in Canberra — a real craftsman, but I don't have any information as to what it is scaled down from.

I did have good intentions to visit the club each Tuesday and if possible some Saturdays during the winter months.

As I am the equipment officer with our Gidgegannup bush fire brigade I cannot venture out of Gidge in the summer. I did have sincere plans to retire about 3 years ago but my customers have not let me yet, but I'm working on it now!

**Les Harris**

*Good to see you at the last meeting, Les. We're looking forward to seeing your loco on the track — Ed.*

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## 4.4.0 Wainwright D Class

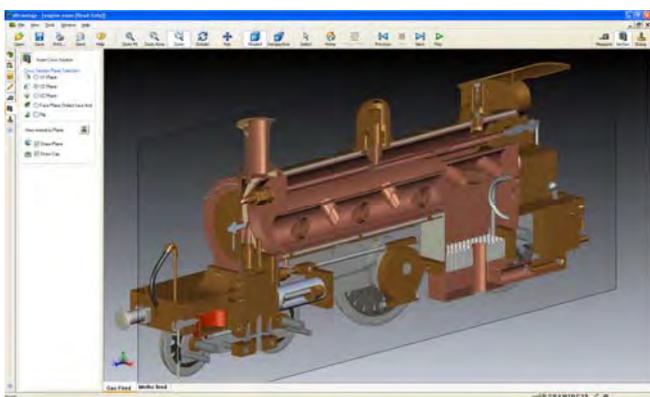
by Laurie Morgan

The model was made by Laurie Morgan to the design by Dick Moger and Barry Applegate, which was published by the G1MRA in booklet form in 2001. The model is 10mm to 1ft or a scale of 1:30.5 with a gauge of 45mm (Gauge 1).

It has a meths fired multi-tube boiler, an axle driven feed pump with by-pass, a manual feed pump in the water tank in the tender, and a displacement lubricator under the front footplate. Water level indication is electronic with a water level sensor in the boiler and coloured LEDs showing high (green) and low (red) water levels. Drains are fitted below the cylinders. Reversing is by slip eccentric.



Above: Laurie Morgan's fine scale model of the D Class  
Photos: Laurie Morgan



The "DEE" has been modelled in 'edrawing' by other modellers (*above* — taken from the *DEE 3D Companion Reference CD*), showing how easy it is to *virtually* make something compared to actually making it!

### The original Loco

51 of this class of loco were built to the design of H S Wainwright for use on the South Eastern and Chatham Railway and the Chatham and Dover Railway. At the time, 1901, these railways were not highly regarded by the public so the engines were styled and finished to a high standard to create a favourable impression.



H C Casserley/R M Casserley collection

The design was a success but 21 of them were further improved by Maunsell in 1913 by the fitting of Belpaire fireboxes. Maunsell also showed what he thought of the shiny brass and green livery by painting over them in battleship grey with a plain white number.

Later the engines were transferred to the Southern Railway and later still in 1948, 28 of them were inherited by British Rail. One of them, number 1472 was destroyed in an air raid.

In the 1950's, loco 737 was set aside for preservation and after a spell in storage it was refurbished and returned to its original LB&CR guise at Ashford in Kent, where it had been built. It has ended its days in the National Railway Museum in York although not in operating condition. It is remarkable how they have managed to make it look so much like the model.

**Laurie Morgan**



National Railway Museum

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# 7<sup>1</sup>/<sub>4</sub>" Rail Construction Report

by Tony Jones

As most guys know I have continued plodding along with putting rail together and I do now have a considerable stock of straight rail and curves. Almost enough to complete the job — what I am desperately short of is help of the younger kind to relieve me from the heavy lifts. I am sorry but I am beginning to feel the weight and my age.

Early in July, George and myself lay down a temporary rail whose only purpose was to carry foundation material to the end of the line. We used the club loco to tow the hopper car around, this relieved some of the drudgery — well, George enjoyed it. This time we were determined to compact a firm level base, so that when the rail was put in place it would be spot on.

Previously when we came out of the tunnel the curve was on a 18m radius curve. We knew we had to deviate from the raised track so a 19m curve was needed from there on. That meant that the jig had to be changed to the new radius. In the mean time Mr Collins and Mr Costall had arranged to come down and lay track on that certain Saturday but when they arrived I was just setting out the jig. We put our best feet forwards and rushed to complete this curve that was holding up the rest of the track.

We got it out by 10am and it was blended with half an old curve of 20m radius. This was quickly tacked together and Paul laid all the straights and it was fantastic progress.

The end of the rail is now waiting close to the flag pole for the remaining 19m curves which will continue on for a further 180 degrees. There are only 4 curves left to weld up.

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## Visitors from Scotland

Bob and Patricia Scales, from Scotland, were very welcome visitors at NDMES on 26 September, our Public Run Day. Bob is a member of the Scottish Model Engineering Trust, formerly the Perth Society of Model & Experimental Engineers.

You can see Bob driving his 7<sup>1</sup>/<sub>4</sub>" gauge Romulus if you visit the S.M.E.T Photo Gallery. Bob and Patricia were staying at Sorrento, before flying across to Melbourne to visit the Puffing Billy Railway, and other great attractions.

**John Shugg**



Above: .Tony Jones "supervising" Ron Collins on a tricky piece of track work...

Photo: John Shugg

We desperately need a couple of guys on shovel and wheelbarrow to finish the earthworks and lay foundation and also compact it flat. Two sessions and it would be ready for track. Don't be shy — the exercise is good for you. Also we are desperate for a couple of painters. Let's finish it before Xmas!

**Tony Jones**

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## Photos from September Run Day



Photos:  
Andrew Manning



Northern Districts Model Engineering Society (Perth) Inc.

Track Site/Club Rooms:  
Vasto Place, Balcatta  
Western Australia  
Site phone: 9349 0693

All correspondence to:-  
PO Box 681  
Balcatta  
Western Australia 6914  
[www.ndmes.net](http://www.ndmes.net)

## Progress on WAGR Es Class LOCOS (cont)



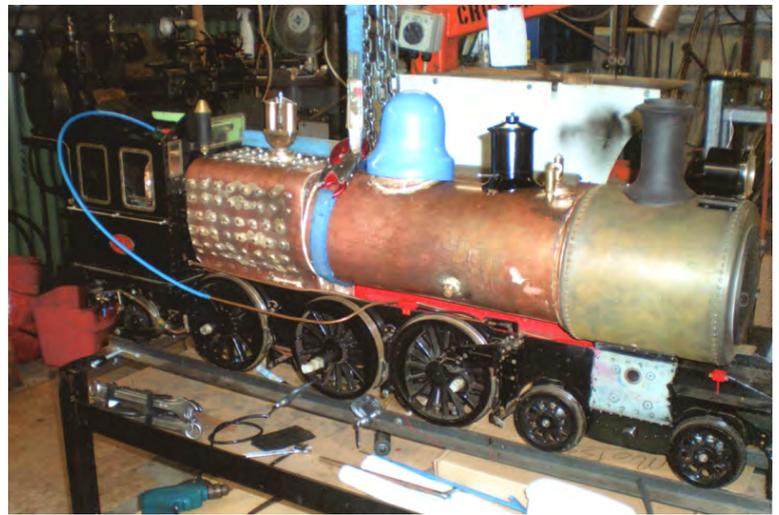
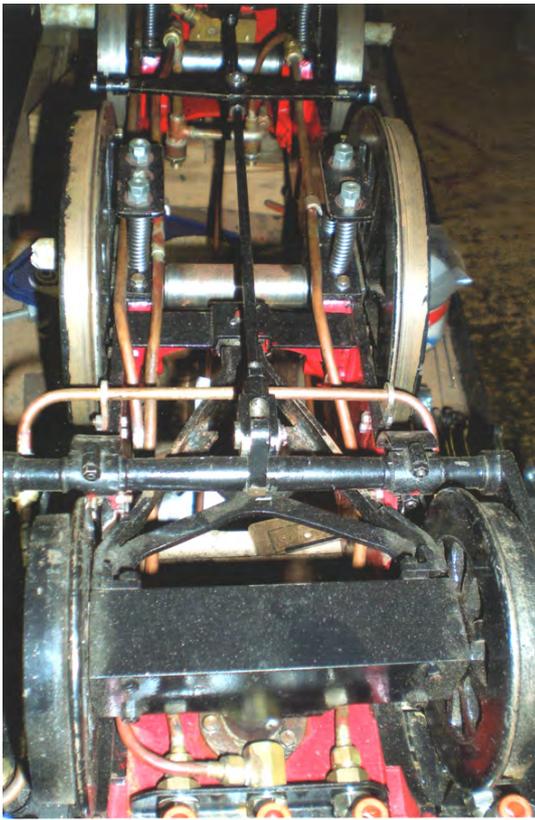
Above: Early days — Cabs, chimneys headlights, smokeboxes, frames and wheels.

Left: Hours and hours of Ed's work — trailing bogie, brake gear and suspension springing.

Right: Patterns for wheels, chimney core box and chimney.

Below: Boilers and fittings finished subject to a rework on boiler brazing.

All photos: Ed Brown



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