



Newsletter No. 3 – December 2016.

Edited by Cedric C Lodge

Dear Member:

As 2016 draws to a close, we are pleased to present our Newsletter No. 3.

This year has been one of consolidation, augmented by innovative developments in the testing of steam locos. Chris Newman has carried out some impressive development work on our website, which we hope will be of help to you, our Members.

1. Chairman's Notes

John Hind

Last time I wrote my notes, my theme was sustainability and ways to make Members feel part of our group and to encourage them to remain Members. Since then two things have happened: one successfully and the second not.

The first is that the October conference was a tremendous success, to such an extent that we are planning another next year. Chris Newman writes about this later and outlines plans for a more ambitious event, taking on board comments received and lessons learnt.

The second was an initiative to set up discussions on modern steam topics using e-mails addressed to everyone - this was not successful. We had problems with bouncing e-mails, full inboxes, spam filters, etc. This prompted Andrew Taylor to set up the 'Advanced Steam Traction Group' forum on Forumotion. Fourteen of us subscribed to it and we started a number of discussions; 'GPCS – is it the solution for poor coal', 'What's the purpose of a Combustion Chamber', 'Locomotive Lubrication', 'Test Rig for Exhaust Systems', 'Circulating Fluidised Bed Combustion', etc.

In the transition to the Forum we missed a number of people who could make interesting contributions.

Later on in the Newsletter, Chris Newman outlines improvements to the website; one of these is the introduction of Forum sections for Members' discussions which will supersede the one on Forumotion. Thank you Andrew for setting up the Forumotion site which showed us the possibilities, and with work that Chris and his daughter have done, we now have a 'one-stop' shop for Members.

A number of Forum topics have been set up covering a range of special interests, however these can easily be expanded to suit Members' needs. The Committee hopes that this will encourage everyone getting more involved and taking the opportunity to expand their knowledge of locomotives and the science and engineering behind them. Members are encouraged to contribute their views, knowledge and experience and to propose (to the webmaster) new topics for inclusion in the Forum.

To make the discussion Forum a success, it needs your input. Have a look at the Forum, and then it's over to you!

I'd like to extend a welcome to all new Members, who have joined us since the last newsletter. Previous newsletters have asked for help with managing the Website and Companies House reporting. If any of our new Members can help with these vital back office activities by shadowing Chris Newman or Paul Hibberd, please contact us via info@advanced-steam.org.

The King George the Vth project features later on. This project is being masterminded by our treasurer Paul Hibberd. The Trust itself and Jamie Keyte, through his company Keyte-Smith Ltd., have supported the project in a number of ways. However, there are new requirements for more Finite Element Analysis work, so if you know of someone who can help with this please contact Paul directly – Paul's address is given later.

In the Newsletter, there are two dates for your diaries: one at the beginning of March for our AGM, and the second at the end of September for our next conference. Following a suggestion from Graham Thornley, we are holding them at Bury Transport Museum where the facilities and catering will represent a step change from the Haworth venue.

Don't be put off by the thought of attending the AGM. We aim to complete the formal part of the meeting very quickly, then there will be an opportunity for some steam locomotive presentations and discussions. If anyone would like to give a presentation at this meeting – perhaps as a try out for the conference, please contact us by e-mail.

I work in an industry which is keen on Key Performance Indicators and I cannot help carrying this over to ASTT. The one I am interested in is how many of us re-new our subscriptions, due for renewal at the end of the year? Renewals are a measure of customer satisfaction and whether we are meeting Members' needs. There is more detail later on how to renew. The simplest way is by setting up a Standing Order. Anything we can do to save on Admin saves a lot of heartache for our Membership Secretary.

Finally, a happy Christmas and prosperous and healthy New Year, to everyone and their families.

2. Website development

Chris Newman – AST Webmaster

Recent (and ongoing) developments to the website include the following:

- **A Login page** allowing registered Members access to certain parts of the website. In order to login they must first be registered on the site. To avoid spurious applications for registration, Members will be individually registered the webmaster.

Note: Every Member should receive an auto-generated email notifying his username and inviting him to set his own password. If any Member does not receive this email, he should notify the webmaster at info@advanced-steam.org.

Once logged in, Members should be able to:

- access the Members' Forum (see below) and make contributions to it;
- add contributions (posts) to other topics listed on the Forums page;
- propose new topics for the Forum.

- request email notifications of new posts on any Forum topic;
- post comments under News items;
- request email notifications of new News items (posts) and comments;
- submit News items (posts) for publication.

Note: Members will initially be registered as “contributors” to the website and “participants” to the Forum. Individuals’ “role” settings (which define levels of access) can be adjusted if/when needs arise.

- **Website security:** an “SSL certificate” has been purchased for the website to provide security to Members by encrypting their usernames and passwords when they log in. When you login to the site, you should find that AST’s website address appears with the prefix https:// (instead of http://) confirming that it is SSL protected.
- **News section:** News items are now created as “posts” (or blogs) allowing logged-in Members to contribute comments and submit their own news items for posting. In addition, Members can request email notification of news updates. (See Addendum at the end of this Newsletter containing instruction how to access the “back-end” of the website in order to add “posts”.)

Changing the news items to “post” format has allowed a News summary to be inserted (and updated automatically) in a side-bar on the Home page. Furthermore, it has allowed a link to be created with AST’s facebook page (administered by Iain Jack) through which the 10 latest website posts should automatically appear on the facebook page. [This feature has only just been installed and has not yet been rigorously tested, so bugs may be found in it.]

Contributors can keep abreast of feedback by checking the box at the bottom of the ‘posting’ page where it says “Notify me of follow-up replies via email”.

- **New ‘Top Menu’ headings:**
 - A **Members’** section containing content accessible to logged-in Members only. At present only the Haworth Conference page is listed under the Members’ heading for which a password is still needed to access it (*please write to the webmaster if you would like the password*). It may be expected that more links will be added in future as the website (and the group) develops. [A link to the Members’ Forum has also been added under this menu item.]
 - A **Forum** section to provide a platform for discussions, allowing Members to raise and discuss subjects of their choosing through the medium of the website. To get the system rolling, a sample collection of discussion “topics” (subject areas) have been set up – viz: General Discussion Topics; Exhaust Systems; Fuels and Combustion; Lubrication; Steam Technology; and a Private Members’ Forum. Please be careful to choose the most appropriate forum for your contributions or, if none are appropriate, write to the webmaster to request a new forum subject heading of your choice.

You can subscribe to any or all Forums by opening the Forum page and clicking on the “Subscribe” link near the top of the page. If you subscribe to a Forum, you should receive email notification of any posts that are added to it. Likewise you can subscribe to an individual topic if you want to receive notification of further correspondence about that particular topic. [Posts and topics posted onto Forums do not get relayed across to AST’s facebook page as News posts do.]

Note: Non-members can read Forum posts but can’t contribute comments. Furthermore, non-members can’t access posts in the Members’ Only forum.

It is hoped that these and further developments will help to turn the website into a tool that meets the needs of the group. Members may at least feel reassured that work is in progress even if it is often slow and faltering.

Feedback of ideas and suggestions will be welcomed, as will contributions of news items, Forum posts, and page content etc. Feedback can be sent by email or through the forum.

Help needed: If any Members can offer knowledge, experience and/or time to help with the website’s content and/or development, it will be warmly welcomed.

3. Membership

by Chris Newman (ASTT Membership Secretary)

ASTT membership has risen to 32 at the time of writing (19 November) comprising 11 Full Members and 20 Associate Members. This represents an increase of 9 since the issue of the June newsletter and following recent the death of Alan Fozard (see obituary below). Many of our 10 new Members wisely took advantage of the “two-for-one” offer of 6 months’ (half-price) membership being included in their £25 entry fee to the Haworth conference. We hope that they will continue their membership into 2017.

We welcome our ten new Members listed as follows (in date order of joining):

- **David Nicholson** from Bournemouth: dental surgeon and miniature steam builder;
- **Xavier Jiménez** from Valencia in Spain; professional engineer working in the satellite and defence area. 25 years’ experience driving and overhauling locomotives for the Basque Railway Museum and Decauville locomotive CP-E9, and in training others in these skills. Xavier is also Editor of *El Todo Vapor* (All Steam) magazine.
- **William Powell** from Bournemouth: specialist in CNC turning, architectural model building and miniature steam construction. In his student days, William built the model of the 5AT that now resides in the National Railway Museum (see website news article).
- **Robin Pennie** from Todmorden, Lancashire: musician, biographer and member of the L&Y Railway Society editorial team. Robin is the author of a biography of *Sir John Hawkshaw* which he has offered to AST for sale through its website (see Publications section of this newsletter).
- **Adrian Tester** from Aberystwyth: professional engineer specialising in (amongst other things) the design of process steam installations. Adrian is the author of two technical books

that he has offered to AST for sale through its website (see Publications section of this newsletter).

- **Nigel Thornley** from Cheshire: professional electronics/electrical engineer.
- **David Hyde** from Northolt, Middlesex.
- **John Boutwood** from Leeds: professional chemical engineer; specialist in fuel sciences including design, building, commissioning and operation of various incinerator plants.
- **Owen Jordan** from Swansea: architect and innovator; presenter of paper on “*A Future for the steam locomotive?*” at ASTT’s Haworth conference in October.
- **David Gibson** from Coventry: railway innovator providing IT and technical research services to FOCAL Limited and RAILFAST. Currently a director of Winnings Trains Limited aiming at building a modern, low-maintenance, low-cost 21st Century steam locomotive.

In addition to the above, we look forward to welcoming Zach Bond and Edgar Smallegange to the membership in January 2017.

Please note that everyone’s membership expires on 1st January 2017 when subscription renewal invoices will be sent out to those who have not signed Standing Order Mandates. ASTT remains a fledgling but increasingly active group that needs the ongoing support of its Members, so it is sincerely hoped that everyone will be happy to renew their subscriptions.

4. Haworth Conference Report

by Chris Newman (Conference Organiser)

A summary of the conference has been published in the News section of the ASTT website. Copies of each of the five PowerPoint presentations and video recordings of the presentations have also been uploaded to a password-protected page on the website, access to which is limited to ASTT Members and conference attendees only.

The price of conference entry tickets was based on the need to cover ASTT’s outlays in hosting the event. As it turned out, attendance numbers were greater than the 25 budgeted for, with the result that the conference generated a small profit of slightly over £100.

After some networking at the conference, David Pawson sent a paper on the effects of clearance volume on locomotive performance to David Elliott.

5. 2017 Meetings

by Chris Newman (Conference Organiser)

2017 AGM

Members should already have been advised that the ASTT annual general meeting will be held at the Bury Transport Museum on **Saturday 4th March 2017**. The venue has been selected because it combines a number of advantages:

- It is close to the “centre of gravity” of ASTT’s UK membership (see map at right);
- It is easy to access by public transport, being about 5 minutes walk from the Bury Metro station which has direct connections to Manchester Piccadilly and Victoria stations.
- Finally it is next door to the East Lancs Railway’s main station.

It is expected that the meeting will be a 1-day Members-only event that will combine what should be a short “general business” session with a semi-formal session in which Members may present papers and/or engage in discussions on steam related topics.

Further information will be circulated once an agenda for the meeting has been firmed up, but in the meantime Members are asked to mark the meeting date on their engagement calendars.

2017 Conference

The enthusiastic responses from those who attended the 2016 Haworth conference and numerous expressions of interest in future similar events, have encouraged ASTT’s committee to confirm their plan to host a second conference in 2017. It is therefore proposed to hold the conference at the Bury Transport Museum (as above) over the weekend of **Saturday 30th Sept and Sunday 1st October**. A notice will be circulated to AST Members and others who may be interested in attending once arrangements are finalised, and will include a “call for papers” from potential speakers.

As part of the event, we will try to organise a visit to Ian Riley’s new workshop premises, where the frame components for the new build Clan are located. The workshop is close to Bury.



6. Publications

by Chris Newman (AST Publications Manager)

ASTT Publications

- **5AT Fundamental Design Calculations:** Sales of the FDCs have dropped to less than one per month now. In fact, the last copy remaining in stock was sold this month (November). Since then, an order for five more copies has been received from Camden Miniature Steam which will bring total sales to 168 to date. An order for seven copies has been placed with the Edinburgh Copyshop which will leave two in stock once Camden’s five have been sent off. Sales of the FDCs have so far generated a profit of over £3,500 for ASTT.

- **5AT Feasibility Study:** Edinburgh Copyshop's quotation to produce colour versions of the Feasibility Study came to £30 per copy, which is more than most buyers would be willing to pay for it. The book will therefore be printed using Ingram's Lightning Source on-demand printing service which can print and deliver individual (colour) copies direct to buyers for between £10 and £17 depending on their country of residence – i.e. not much more than the cost of postage for sending locally printed copy overseas. Lightning Source does this by directing each individual book order to a printing plant in or near the buyer's country and posting it off from there. In this way, use of their services will not only reduce production costs by a substantial margin but also eliminate the need for ASTT to purchase or store a stockpile of books. It will also eliminate the need for ASTT to pack and post books to buyers.

Preparing the book for printing has been a time-consuming job requiring the conversion of colour images from RGB to CMYK format (a colour standard used by commercial printers). However a proof copy has now been received and once some minor colour adjustments have been made it will be ready for sale. A notice to this effect has already been posted onto ASTT's website.

Post-script to the Feasibility Study: Just as the 5AT Feasibility Study takes its final steps towards publication, the Railway Magazine reports that the A1 Trust has announced "a new concept in steam charter train operation" in which A1 Pacific 61063 Tornado will be paired with a luxury train of Mk3 carriages, all to be registered to run at a maximum speed of 90 mph "to fit in better with what is an increasingly congested national rail network". Furthermore, additional water supplies are to be carried (in the train) to give Tornado an operating range of around 200 miles – sufficient to run from London to York non-stop.

We gave a copy of the 5AT Feasibility Study to the A1 Trust in 2009. It looks like a number of the ideas have come from the study which was based around the concept of the 5AT being used to operate high-speed luxury trains formed of Mk 3 stock and able to run long distances without taking on water. 5AT would have been able to run faster, more efficiently and over longer distances, but the overall aims were the same, most particularly of being able to access the increasingly restricted train paths available on the overcrowded 21st century rail network.

It serves to prove that the 5AT Feasibility Study was on the right track even if it failed to show an attractive return on the investment because of the costs of designing and building the locomotive.

- **Porta Papers:** preparation work will start on the Porta transcriptions once the 5AT Feasibility Study is published. It is planned to use Lightning Source to produce the book(s) for which the preparation work should be much simpler than it was for the Feasibility Study, since the transcriptions are entirely in black-and-white.
- **762 Lyn Design Calculations:** Ian Gaylor has confirmed his interest in engaging ASTT to publish his design calculations for "Lyn". These will not be ready for publication until around May 2017.

Phil Girdlestone's Autobiography "Here be Dragons"

Dave Wardale is in the process of converting Phil's manuscript into publishable form. Unfortunately this will not become an ASTT publication because the format Wardale has chosen follows that of Phil's earlier book "Camel and Cadillacs" using A4 paper in hard covers, a combination that Lightning Source doesn't offer. In consequence the book will have to be printed conventionally necessitating capital outlay and shelf-space that are beyond ASTT's resources. It is therefore hoped that Camden Miniature Steam will take over the project and allow ASTT to sell the book through its website.

ASTT Members' own Titles

In addition to the above, offers have been received from two Members for ASTT to market their books through its website:

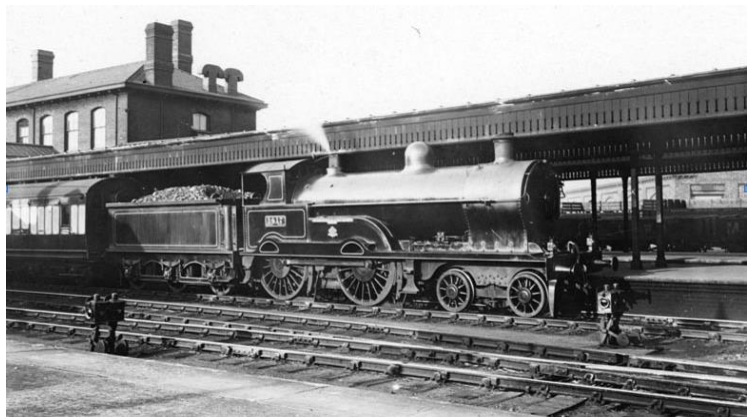
- **Adrian Tester** has offered his two self-published books: "*An Introduction to Large-Lap Valves & Their Use on the LMS*", and "*A Defence of the Midland/LMS Class 4 0-6-0*", both of which provide fresh and intriguing insights into long-established "facts" that may not be as factual as many of us have hitherto believed! Both are now available for purchase through the ASTT website.
- **Robin Pennie** has offered his biography of the 19th century engineer *Sir John Hawkshaw*, published by the *Lancashire and Yorkshire Railway Society*.

ASTT Members are welcome to offer titles of their own (or of others) for sale through AST's website.

Note: It is intended that price discounts will be offered to ASTT Members on all the above publications.

7. 'George V' Project:

From information supplied by our Member Paul Hibberd, we are pleased to report briefly on progress with the new-build project to build a replica of an LNWR *George V*. For those not familiar with the type, here is a photo of 1417 *Landrail* at Stockport.



Work is in hand for the production of bogie wheel centres – see photo below right.

Manufacture includes non-destructive testing, and it will be interesting to learn in the future what this involves.

Work is also progressing towards manufacture of the coupling rods. Our Member Jamie Keyte has produced a stress analysis for the rods. In place of the traditional methods of manufacture involving hot forging, water jet cutting is to be used for cutting out from a billet.

On a more sombre note: the Project is subject to the new regulatory regime applicable to vehicles intended for use on Network Rail lines: RIS2700, which came in to force in June. This has entailed a considerable amount of extra work by those involved with the Project in carrying out finite element analyses on critical components.

Always an encouraging stage to reach is the completion of the smoke box, as seen at right.

With the smokebox completed, there is urgent need for the boiler to join it. With this in mind, a Boiler Barrel Club has been launched as part of a fundraising scheme to help pay for it. It is hoped the boiler shell will be completed by next year.

Members wishing to contribute are advised to contact Paul Hibberd, 62 High St., Buntingford, Herts SG9 9AH, making contributions payable to **'LNWR George the Fifth Trust'**. Paul's email address is paulhibberd@gmail.com.

'George V' Exhaust Feasibility Study: An interim report has been issued to the George the Vth Trust giving a couple of options on draughting. This raised a number of questions, particularly about draught losses through spark arresting screens which has prompted further research into historical data. BR's Rugby tests give draught losses through the Master Mechanics/BR self-cleaning plates but there is little data on draught losses through the simpler form of spark arrester retro-fitted to the current mainline fleet. There is some data from model tests carried out in the USA in 1935 on the simple screens and this is being reviewed.



8. KWVR S160 Lempor Exhaust

by John Hind

S160 - 5820: The K&WVR's S160 is back in traffic, but its performance is not as sparkling as it once was; piston ring wear is suspected. As the railway is short of engines, it cannot be stopped until its annual boiler exam in the spring of next year.

We have been asked to provide a replacement blower ring for it. The one we supplied with the Lempor has suffered from severe local ash erosion in 4 small areas all diametrically opposite and at 90 deg. to each other – the rest of the ring is in as-new condition. It has been temporarily repaired by building up the affected areas with weld. At the annual boiler exam we will fit a modified ring – the erosion appears to be where the flue gas flow is directed up between the nozzles. No other part of the system has been affected by erosion.

We have always thought that the draught was too strong, and one of the solutions might be to increase the blast nozzle area and reduce the draught. Before we decide whether this a potential solution we would like to know how the system is performing, and the KWVR have agreed that we can take some draught measurements on service trains. On Friday 9/12/16 we went over to Haworth to do some trial fits of the vacuum transducer and identify a cable route from the smokebox to the data logger. The logger will be located in the fireman's locker on the tender. One of the challenges was to find a cable route that would not be affected by hot pipes, etc. Fortunately, the engine is airbraked and we can route the cable following the airpipes, which – being an American engine, are on the outside and not hidden between the frames.

The service train measurements will be carried out in the New Year.

9. Locomotive Testing at Kirklees

by J Keyte and M Horne.

Jamie Keyte and Mike Horne continue with developing testing procedures for steam locos. Their work has centred on 'Badger' of the Kirklees Light railway. Jamie Keyte takes up the story from Newsletter No. 2:

After the initial trials it became evident that there were two serious issues:

- Our method of measuring pressures in the cylinder was showing pressures in excess of the inlet pressure. Since we have yet to find a way to circumvent the laws of thermodynamics there was clearly something going on. Mike managed to identify the problem as an interaction between a slug of condensate and trapped air in the transducer pipe. Making the transducer pipes short, horizontal and full of condensate only, cured this problem.
- The logged data was showing poor levels of resolution. This was traced to the software logging mode. Once this was corrected we were able to log data at the desired resolution of 1,000 samples/second. Unfortunately, the logging mode which permits high sample rates prevents the use of a second input, so the temperatures will need to be logged by a separate device.

Another day of trials was undertaken on 26 Sept., with far better results-not yet perfect, but we were at least able to interpret the data and create some indicator diagrams. (See illustrations below, which show a portion of logged data and the indicator diagram derived from it). This gave us a chance to test the spreadsheet developed by Excel to analyse the results and convert rotary motion defined by the crosshead sensors, into linear piston positions.

We felt this was a big step forward, however, it was evident that there were some outstanding issues:

- The vacuum readings were barely discernible, so Mike has recalibrated the vacuum transducers.
- There were sections of the logged data where chunks of information were missing.

Here Mike takes up the story: After bringing some external assistance with the right test equipment, it was found that the logging system only gets reliable data up to the number of samples set and the speed of sampling. As we are using 1 KHz. as the sampling rate, this meant that recording was incorrect after the default setting in the software. This was only detectable when a known signal input was applied. The sample count has now been set so that the 16 minute run that is the logger's data file limit, can now be recorded in full.

Since Mike Horne's paper at the conference we have not been able to progress this further because the railway has been busy with preparations for Halloween and Christmas. We expect to go back in the New Year to perfect our measurement techniques. Once we have proved our instrumentation, then we can devise a series of trials to validate our software.

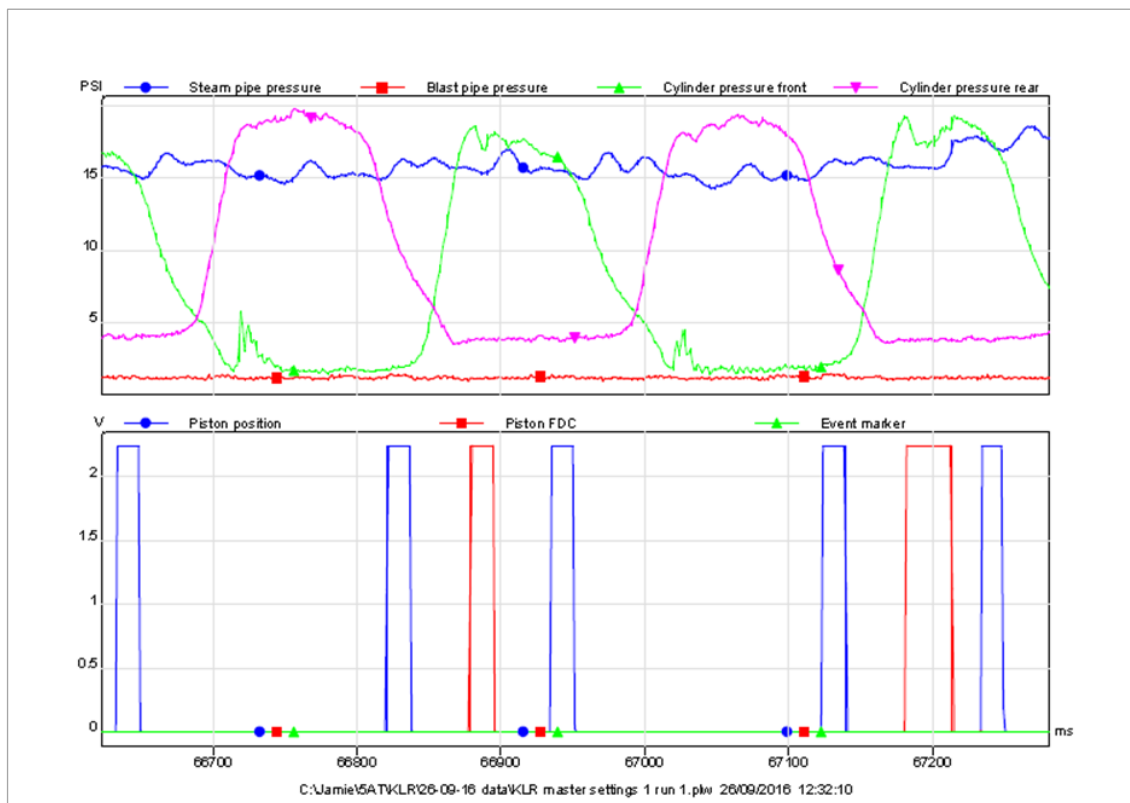


Fig. 1. Portion of Logged Data

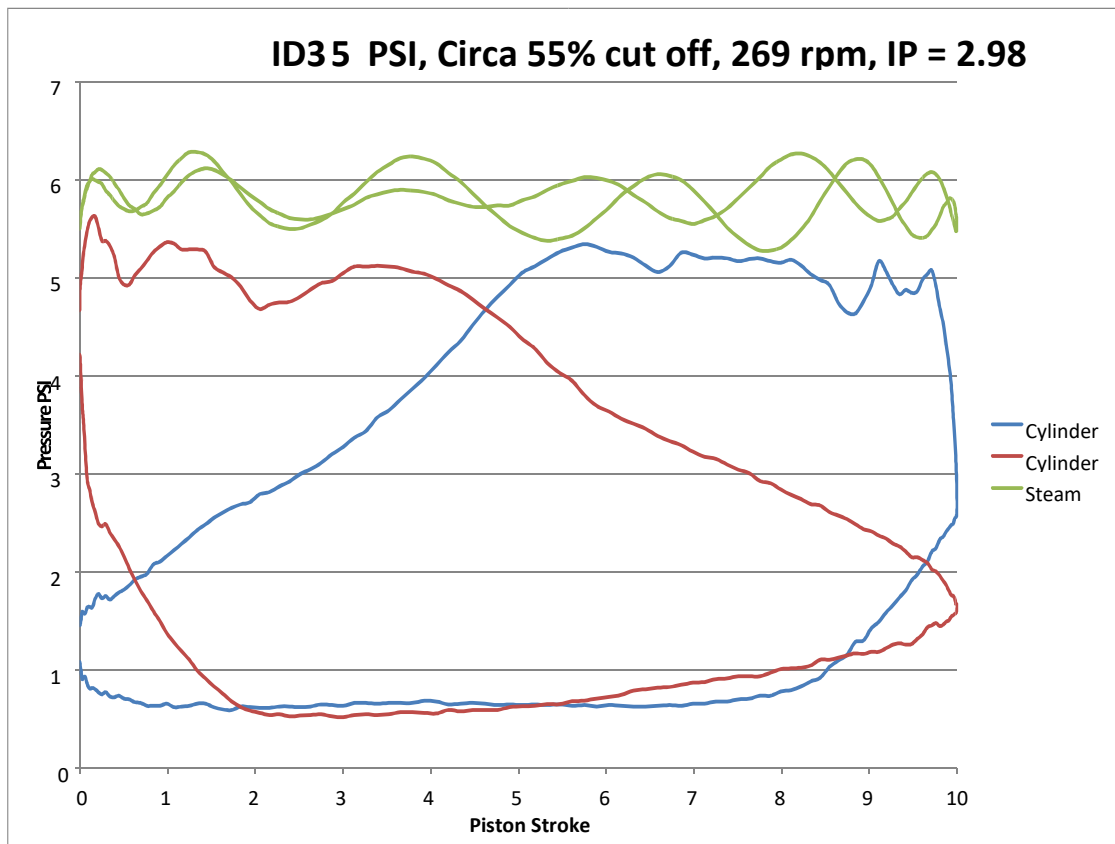


Fig. 2. Indicator Diagram derived from Logged Data

10. Participation

The work of ASTT is a collaborative effort. Anyone wishing to join in and help with the various activities with which ASTT is involved is cordially invited to do so.

This e mail address or the contact details on our web site info@advanced-steam.org may be used to contact us.

11. Alan Fozard: 1937 - 2016

by John Hind

Just as we were finalising the Newsletter, we heard that Alan Fozard died on Sunday 11/12/16. The last time we met Alan was at the October Conference.

Alan was one of the founder members behind the 5AT project and its business brain. It was Alan who researched and costed the business plan, including the concept that the A1 Trust are now adopting.

In due course a fuller obituary and tribute will be put on the website, but in the meantime here is my contribution to his 'Celebration of Life'.

"Alan had a lifelong fascination with railways and steam locomotives. After retirement, Alan was able to combine his business experience with his enthusiasm for steam by joining with David Wardale and Chris Newman to develop the 5AT Project (a steam locomotive for the 21st Century) - perhaps not realising this would have as many challenges and frustrations as a full time job.

Many of us fondly remember being recruited by Alan at the Assessment Centres he held in the Hollybush. While not as challenging as 'The Apprentice', they served to select a team of complimentary individuals, who were willing to tackle any number of problems. Salt became the centre of our activities, with Alan and Carolyn's upstairs room becoming the 5AT Board Room and Conference Centre. Little did we realise that this would involve us in projects for not only the UK, but also Indonesia and Mexico. Sadly, none came to be.

The bonds that we formed in those early days are still here today, and when the 5AT Project came to an end, we wanted to continue as a group-using 21st Century tools and techniques on a machine that originated in the 19th century yet was not fully developed by the end of the 20th. century.

That we have stayed together as a group is proof of the worth of the Hollybush Recruitment Process. This is our best memorial for him."

The Hollybush was his local pub, in Salt – the village where he lived and is buried.

John Hind and Mike Horne attended his Celebration of Life and burial on the 21st of December.

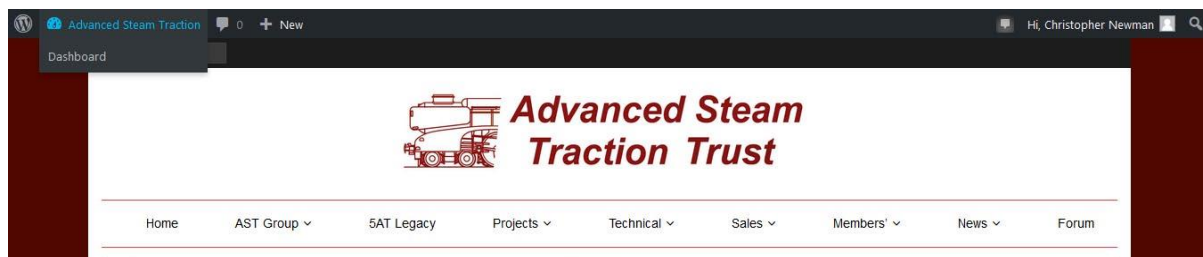
On behalf of the Trustees of ASTT, may I wish you all a Happy Christmas.

Cedric C Lodge.

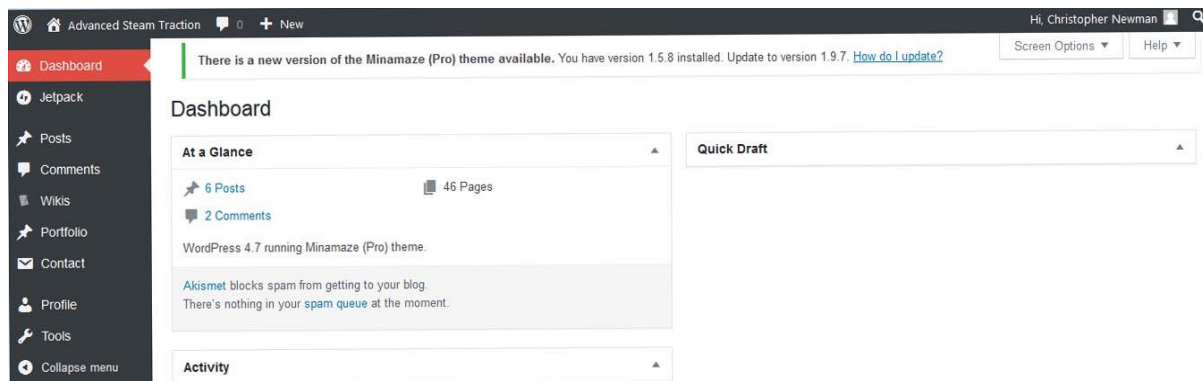
Addendum to December 2016 Newsletter:

Additional instructions regarding access to the “back-end” of the AST website:

Logged-in members have access to certain “back-end” functions. These can be found by clicking on the “dashboard” link at the top-left-hand corner of a page, as below:



This will take them to the back-end section with a menu of options at the left side, as below:



Of these menu items, there are only two that are immediately useful:

1. **Posts:** This page allows members to see a list of existing posts and to add posts of their own - e.g. news items – to the website. The method of doing so is described below.
2. **Profile:** This page members to change their passwords or other information about themselves. To change a password, click on the button “generate password” and replace the autogenerated code with a new password. Then click on “Update Profile” at the bottom of the page.

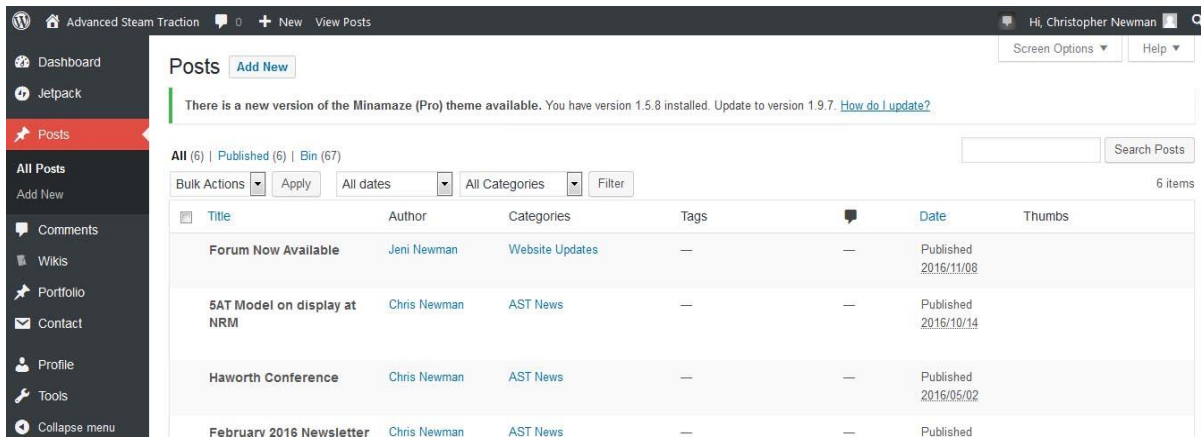
Of the other menu items:

3. **Comments:** Allows members to see comments that have been added to pages or posts on the website. At present, members can add comments to/about articles that appear in the News section of the site. If desired, the site can be reconfigured to accept comments on/about any/all of its pages.
4. **Wikis:** This facility (“plug-in”) is still functional but it is not currently functioning. It was originally set up to allow members to add or modify articles (pages) under the “Technical” section of the main menu. There were some minor formatting issues with the Wiki pages (which is why they were replaced with standard pages) but they and the functionality of the Wiki system can be reinstated if required.
5. **Portfolio:** This appears to be a feature that allows members to add information about themselves. It is not known how or where that information would be displayed.
6. **Contact:** This section appears to have no functionality for members, though perhaps there is purpose for it being included in the menu list.
7. **Tools:** Likewise, this item has no obvious functionality for members to use.

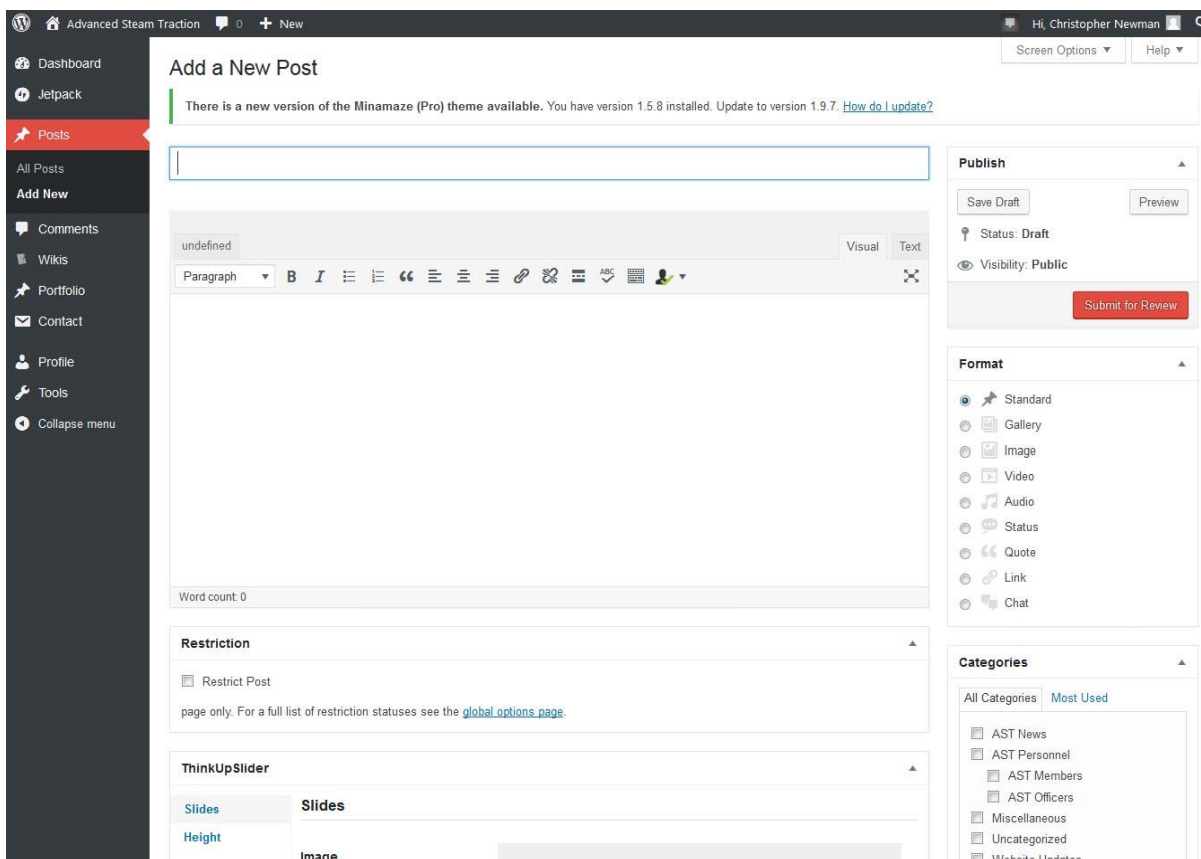
Instructions for adding “posts” or “blogs”

To add a post, logged-in members must first access the back-end of the website described above, whereby they will find themselves at a page with a menu of options on the left-hand side as illustrated above:

Clicking on the “Posts” option in the menu will open a new page as shown below:



On this page all the existing posts on the website are listed and can be viewed. At the top left-hand side of the page is a button marked “Add New” which (when pressed) will open a new page where members can add their own posts, as below:



Entries should include a “title” in the “text box” top at the top of the page, and their article or news item in the main text entry area in the middle of the page. It is then important to select the Category under which the post is to appear. In most cases, it is expected that this will be “AST News” but it’s up to the author to choose.

Once the entry is complete, the author should click on the “Submit for Review” button at the top right of the page. Entries are thus sent off to the webmaster for acceptance or rejection.

It should be noted that as of 21st Dec 2016, the website has been configured such that the 10 most recent posts are relayed to AST's Facebook account on which they will automatically appear.

Note: If it is considered unnecessary for posts to be authorized by the webmaster, then the site can be reconfigured to allow posts to be displayed without review.

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