

# **CINDERBARRROW FLYER**

The Newsletter  
of  
**Lancaster & Morecambe Model Engineering Society**

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**WHAT A HAPPY BOY THEN  
PETER GRIFFITHS WITH HIS NEW STAFFORD LOCO**

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**CUMBRIA**

**AQUARIUS THE WATER CARRIER**

**PLUS ALL YOUR NORMAL FAVOURITES**

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## FOR SALE

### MILLING MACHINE

IT HAS BEEN DECIDED BY THE COMMITTEE AND AGREED AT THE LAST AGM TO SELL THE SOCIETIES MILLING MACHINE LOCATED IN THE CONTAINER. IF YOU ARE INTERESTED THEN A SEALED BID SHOULD BE MADE TO THE COMMITTEE BY

NOVEMBER 5TH

## EDITORIAL

Welcome the third edition of the CINDERBARROW FLYER, this is a rather belated edition due to pressure of work on the editor, so apologies to all the avid readers who have been kept waiting.

At the last AGM it was decided to increase the subscriptions from £ 28-00 to £ 30-00, this small increase will help the fees keep up with inflation and for £30-00 you get a awful lot when you look at the facilities Cinderbarrow has to offer.

It has also been decided not to remove the container due to the cost involved and the fact that planning permission is still in place to build an extension on the side of the clubhouse.

The committee was give permission at the AGM to reduce the joining age of membership to try and encourage younger members and offer a day membership to enable us to offer drive it days to the general public, which hopefully would give us another source of revenue

For those of you who do not get a copy of Engineering in Miniature there is an excellent article by John Arrowsmith in the November edition on his visit to the Seven and Quarter meeting held earlier this year which praises everybody involved in our hospitality and welcoming manner, so well done to all involved.

It is not long now to Halloween night, expanding on the success of last year it is hoped that this will be an even better show and that judging by the number of enquires from the public to see if we are running this year it could be a very busy night. Again we will need staff to run the railway and if everything goes to plan there will be two steam loco's running, food in the form of soup and bread will be laid on for those helping and the usual tea, coffee, and biscuits available in vast quantities and the Fish and Chip van in the car park.

### ***Important Date***

*The new steaming Bays should be delivered on Tuesday 22nd October, so if you can help erect this new facility for the society **Please come along** It may take more than one day so if you are available on the Wednesday and Thursday please let me know.*

Martin Sams

Editor

**NEXT ISSUE DUE END OF JANUARY 2014 SO DON'T FORGET TO  
SEND IN YOUR ARTICLES AND LETTERS**

## BRAIN TEASERS

*Read the descriptions provided below and try to guess which proverb they represent.*

- (1) A body of persons abiding in a domicile of silica combined with metallic oxides should not carelessly project small geological specimens.
- (2) A consolidated mass which forms the earth's crust, and which progresses by turning over upon its surface without slipping, does not successfully gather together a cryptogamous plant.
- (3) A chronic disposition to inquiry deprived the domestic feline carnivorous quadruped of its vital quality.

*Answers on page 13*

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### **The 21<sup>st</sup> Sweet Pea Rally hosted by the Nottingham Society of Model and Experimental Engineers.**

The first of these rallies was held at the Egborough Power Station home of the Leeds Society and has been held every year since. It is now extremely popular with over 40 engines in both 5" and 7<sup>1</sup>/<sub>4</sub>" gauges attending over the Friday, Saturday and Sunday, it has become so popular that it is now held at alternate venues North and then South – for instance, next year it is at Guildford.

The purpose of the rally is ENJOYMENT! There is very little formality ( except for the inevitable boiler certs etc) and running is usually on 'an ad hoc' turn up and run basis. Drivers who travel and stay the weekend usually end up in a suitable hostelry on the Friday night and there are a few bleary eyes next morning! Saturday night it is usual for the hosts to provide ( for a fee) a suitable repast. This year it was a help yourself buffet with a very smooth ale from a local microbrewery. After lunch on Sunday presentations are made for various categories of winner. The serious one is the 'June Drake Award' presented by Ron Drake in memory of his wife whose original idea started the rally off and who unfortunately died of cancer early the event's history. This is awarded to the 'Best turned out' loco, previous winners are excluded. Other categories include 'Furthest Travelled' ( I've won this several times and now withdraw from this one as I only have to travel beyond the midlands and I'm 200 miles up!!) This year's winner came from South Sussex and had travelled 205miles as against the runner up who had travelled 203miles. (the mileage is calculated by the hosts,usually using Google Maps).

In order to save space and make sure that the editor includes all the photos I have not put any into this article, they can be viewed on the clubhouse wall in the forthcoming months. I recommend you to look at them and in particular the superb facilities they have in Nottingham. The workshop is open several full days per week and at weekends of course.

See you in Guildford next year?

Malcolm Ford.

*Picture on back page*

# CHAIRMAN'S CHAT

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Having just held our 34<sup>th</sup> AGM three members have retired from the committee. In their place we welcome Debbie Griffiths as secretary and Alec Escolme as a committee member. It's great to see a lady on the committee for the first time as well as one of our youngest members.

It does however raise the issue that we remain one committee member short, surely out of 70+ someone will come forward at our 35<sup>th</sup> AGM!!!

Currently there are two major activities pending, namely the arrival of the steaming bay canopies around the 22 October and our second Halloween night. Please contact our editor Martin for further details if you would like to become involved.

If you have any ideas on what you would like to see for future expansion and development of the site please air those thoughts with a committee member so they be considered.

Finally we saw the close of our current running season at the end of September, and what a season it has been:- Excellent weather, an increase in passenger numbers and an increase in their donations. Thank you to all members for their continued effort and commitment.

Geoff

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## SCHOOL MASTER ARRESTED

Reuters: New York: Today.

At 1135hrs today, a public school teacher was arrested at John F Kennedy International Airport as he attempted to board a flight while in possession of a ruler, a protractor, a compass, a slide rule, a pencil and a pocket calculator. Just before noon, at a hastily convened press conference, the local District Attorney, Judge E Raser said he believes the man to be a member of the notorious Al-Gebra movement. Although refusing to name the man, he did confirm that the FBI would bring charges of carrying weapons of math destruction.

"Al-Gebra is a problem for us", the Attorney said. "They derive solutions by means of averages and extremes and sometimes go off at tangents into abstruse theorems in search of absolute values. They use secret code names like 'X' and 'Y' and often refer to themselves as 'unknowns' but we have determined that they belong to a common denominator - 'the axis of symmetry' - with coordinates in every country."

"As Isosceles propounded two thousand years ago, 'every triangle has three sides' and we shall explore all angles in our determination to unravel every algorithm behind this concatenation of ruthless terrorists."

He went on to say, "Teaching our impressionable young people sentient thought processes and equipping them to solve problems poses a grave danger to civilization which puts the whole governmental order at risk".

Olde Saw (Bob)

**Bon Mot.**

## CUMBRIA

By Stan Jackson 2005

I went to the Lakeside and Haverthwaite Railway for 25 years until a few years ago and spent a week each year on the footplate, passing out as a fireman in 1984. When I retired I decided that I could spend enough time to train as a driver and passed out to drive in 1998, when I drove and fired as often as I could.

The 'fleet' of engines includes two Fairburn tanks, the forerunner of the 2-6-4 standard four designs, two Austerity 0-6-0ST J94's, a Bagnall 0-6-0ST originally from Preston Docks where it shunted banana wagons about, it being fitted with train heating equipment. This is the steam fleet used on daily scheduled trains. There is Furness Railway No 20, the oldest working standard gauge steam engine in the country, which is very pretty but not able to pull timetables trains, and "David" and 0-4-0 Barclay, least said! Some people love it. Five Diesels complete the stock, including a Class 20, a Class 26, LMS Class 8 and a DMU.



I thought I would describe a typical day on this preserved railway with "Cumbria", the J94 Austerity as the motive power for the day. Built by the Hunslet company in 1952 it spent its early life with the army at Shoeburyness before coming to Haverthwaite where it pulled passenger trains full of holidaymakers instead of munitions and supplies. I am sure its last 25 years have been much harder work than its first 25, but it does its work in fine form. I have built a 7 1/4" gauge model of Cumbria and it drives exactly like the full size. I entered it in the Stephenson Locomotive Society trials one September and it effortlessly pulled 3500 lb. It is such a good engine that I have built another in 5" gauge; this is of course black and numbered correctly. *(as shown on next page)*



The day starts at about 7-45 am, with a feel of a boiler plug to confirm that the boiler is still hot from yesterday and check the water level in the glass. First job is to throw out the dead fire from yesterday and then a torch into the fire-box to make sure it is clean, no leaking tubes, and no fire bars cocked up. There may be "bird's nests" on the tube ends and if it looks like it's worth cleaning them off, a piece of wood is swung over the tube ends and the worst is soon removed. The smoke box has a spark arrester and self-cleaning screen and it is not often there is much to clean out, but is worth having a look. A hose is placed into the tank to top up the water level and we are ready to start firing up.

The engine crew yesterday will have left a wooden palette, broken up and drying against the back-head and possibly a pile of cardboard boxes collected from the shop. These are spread over the fire bars in a generous layer; the wooden palette is then spread evenly over the cardboard and about 2 cwt of coal over the wood. Some newspapers in just the right place will feed the flames to the cardboard so it's time to light the fire. Once it's clear that it is lit, the doors are shut, and we abandon the footplate for an hour or so. The driver is meanwhile carrying out the oiling up and daily checks. All the rods have corks in the oil boxes above each bush and there are six bearings outside, four eccentric, two big end and two small-end inside. All the corks have to be removed, and the bearings filled with oil. The valve spindle guides and expansion links all require attention. The hydrostatic lubricator is in the cab, and needs draining of condensed water and refilling with steam oil. Whilst oiling, up the engine is checked over to see that all is well, no loose nuts or broken springs etc.

It is now about 9.00am and the blower is just starting to lift the fire, pressure is up *cont.*

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## More of Murphy's Law's

**1. Law of the Bath** - When the body is fully immersed in water, the telephone rings.

**2. Law of Close Encounters** - The probability of meeting someone you know INCREASES dramatically when you are with someone you don't want to be seen with.

**3. Law of the Result** - When you try to prove to someone that a machine won't work, IT WILL!!!

**4. Law of Bio-Mechanics** - The severity of the itch is inversely proportional to the reach.

**5. Murphy's Law of Lockers** - If there are only 2 people in a locker room, they will have adjacent lockers.

*Continued from page 7*

to 40 psi and it's time to have a look into the fire and make sure it is burning over the whole grate. If all is well leave it alone but any thin spots are filled with coal. Time for some cleaning, dust down the cab & tanks and wipe over the motion & wheels. The aim is to leave it cleaner than you found it.

Thoughts now of breakfast. The restaurant staff has been in for half an hour and will be getting organized. We get washed up and change into more respectable overalls. Someone from the yard staff has coaled us up with the JCB, so we are ready for breakfast, bacon & egg putties of course.

After breakfast we start thinking of moving onto the train. We have to be on for 10:15, the first train is due out at 10:35 am. Pressure is now about 100psi and looking good.

The boiler was filled to the top yesterday as the fire was let die down, we have not put any in and must have used some, but as the water heats up it expands. All we do is check that the injectors work ok. The Guard comes over and says he is ready for us to move, he does the signal box, so we check that everything is clear and with a blast on the whistle move forward off the dock and up the road. Cumbria has a precocious chime whistle, a bit like an A4. Another whistle, and the road is set for us to move back onto the train. Careful here as it is steeply graded and the brakes will be a bit slow with oil and wet. Gently buffer up and screw the handbrake hard on. Fireman under the back to couple the engine and brake pipe, then back onto the bookplate.

The Driver creates vacuum to set the brakes, the guard is in the brake van to see the vacuum to 20 inches or so and then he zeros the brake to show the driver that the vacuum has been created throughout the train. Meanwhile the fireman starts to build the fire. Full pressure is 170 and we must have it on the red line and the boiler full to the top of the glass as we are starting at a gradient of 1 in 70 and we could have six coaches. With careful management it is usually possible to avoid the safety valves lifting, the worst situation is when all passengers keep running up late and expect to get on the train. A minute or so to go and the Engine steam brake is applied and vacuum created again to take the train brakes off. It is now 10:35 and we get the right of way, pole reverser into full gear and handbrake unscrewed, whistle, steam brake off, open the regulator. This sounds as if it is a complicated process but it all happens in a few seconds, and then what seems like a long wait for something to happen.

The first thing is not movement but an impression of movement as all the rods take the strain, this is where the real power of steam is evident, and then the train moves. This movement is still only very slow, but then you realise that you have moved a couple of feet, the first blast from the exhaust of an engine at 80% cut-off full gear is a joy to hear. A few more beats and the lever can be pulled back to the second notch, the cocks shut and it is clear then that you are on your way. If it is wet, especially on the first train of the day, there might be a half slip, but these

*Continued on page 9*

engines keep their feet very well. Third notch by the crossover and a bit more regulator, and once onto the straight track open to full first valve. The sound is magic. Speed rises to about 10 mph and this is held up the bank, about half a mile, then as the gradient slackens and speed increases the regulator is eased to keep below 20mph . It is scheduled to take 11 minutes to Newby Bridge and a further 7 to Lakeside, with a short stop. We do often have passengers to load at Newby, which adds to the authenticity of the working.

As the gradient slackens coming up the bank, the water level falls quickly and the injector is usually on soon after the tunnel, the increased blast on the fire lifting the pressure close to the red line again. A check on the colour of the smoke at the chimney will reveal the state of the fire, and as it clears, a round of coal is put on keeping the door shut between shovelfuls to stop the cold blast. One round is enough though as we have a wait of 20 minutes at Lakeside on the first trip.

First trip of the day is always interesting as you may disturb deer and all variety of bird-life as you pass through the woodland. It is also possible that sheep may have strayed onto the track and a careful watch is essential. As we pass through the bridge before Newby Halt the regulator is shut and the reverser moved forward into full gear as we drift into the station. A short stop to be sure no-one wants to get off, the guard whistles and waves his green flag and away we go again. Easy start this time as we are starting at 1 in 400 downhill. It is almost level now into Lakeside and with a blast on the whistle we run into the terminus just as the steamer arrives at the jetty. We still call them steamers as they used to belong to BR and some were originally steam.

This is the bit of the job I liked most, leaning out of the cab watching all the holiday makers coming off the train heading for the boat, all with smiles on their faces having enjoyed the train ride and looking forward to the boat trip. It always amazes me how many different faces there are and so few look alike. The number of photos is beyond belief. We uncouple now and run round the train ready for the return to Haverthwaite. When all the passengers are on we get the right of way and set off in reverse on a very slightly falling gradient, and run under a bridge and alongside the lake. As you sit, it's easy to sit down going backwards, and view the water with the sun blazing down, I always thought the same thing, I cannot think of anywhere I would rather be.

The fireman has to put a bit on as we set off back down the line, but only enough to make sure there is a good fire bed for the next trip out of Haverthwaite when again we need to be just right. The engine is stopped at the water tower as we arrive back and the tank filled usually every trip, but it's not absolutely necessary. Then run round to the front again for the next train due out almost straight away. We did six trips a day, seven in July and August when the last train gets back at 5:10pm. After filling up with water we run round to the dock. The boiler is filled and the fire, which with good management is down to a very thin layer but still burning over the whole grate, is thrown out. A broken-up pallet is put on the footplate for tomorrow's fire and away we go home. It's a long day, reasonably hard, but very enjoyable.

## HOW ( NOT ) TO BUILD A BRITANNIA ( OR TWO ) PART TWO.

By Malcolm Ford

### Part 3

Last time I left you with the question as to how my Sweet Pea came by the name 'Applethwaite'. For those of you who do not know Windermere, the village was originally made up of three hamlets: Applethwaite, Birthwaite, and Heathwaite. Applethwaite extends up the fellsides above Troutbeck and up there, there is a quarry – Applethwaite Quarry from which I understand most of the slate came to build Windermere as the area became known when the railway came in 1847. As the Sweet Pea is known by some of our members as being a 'quarry engine' I thought that a quarry name was appropriate.

After completing 'Applethwaite' I decided that I had to build a mainline locomotive if only to keep Stan quiet! After looking around at exhibitions and in the modelling press I decided that a Britannia was the most suitable model to build ( if only I had taken the advice and built something smaller!). I bought the castings etc. from Norman Spink of Chesterfield in late 1997. Going into his workshop/garage/storeroom was an eye opener. Castings, plans, and all types of modelling paraphernalia were everywhere. Unfortunately Norman died some time ago, but Blackgates have taken over the supply of all Norman's castings. Having 'hacked out' the Sweet Pea frames I decided that it was worth buying in a laser cut set for the loco and tender. These arrived early in December and so I started work on 1<sup>st</sup> January 1998 and so far it has taken me 15 yrs and 7 months to build ( nearly finished, I promise!). This is longer than it took BR to build the original, run it and scrap it – July 1954 to April 1968. Early on in the build I had to decide which of the 55 engines I was to model as various options were available. The one thing I was certain about was that it would NOT be 'Britannia', 'William Wordsworth', 'Oliver Cromwell' etc. Eventually having not taken too long, the name 'Solway Firth' (No70049) was decided upon. Having been associated with west coast of Cumberland/Cumbria since 1960 it seemed to be the obvious choice, however this led me into quite a few further choice problems (and associated words). As I built up a profile of the loco in my mind and on paper I realised that I had to decide upon a date for the loco to represent, this came out as 15<sup>th</sup> August 1964. Our wedding day and the day we travelled to Edinburgh on the Waverley Line behind a Britannia – yes 70049.

From my early years doing homework for school I have never been able to work in silence. I always have to have some music playing. From 'Top of the Pops' tunes in the early years I have now graduated to 'Queen', 'Enya' and a lot of classical stuff from Elgar, Bach, Beethoven to Light Opera – Gilbert & Sullivan with Bill Haley thrown in. If there is silence in my workshop there is no work being done!

*Continued on page 11*



Turning the first wheel, 1<sup>st</sup> January 1998



Driving wheel set



The various stages of making the boiler.

Result? Silver solder with copper attached! PS. The boiler did pass its initial test.



## AQUARIUS-THE WATER CARRIER'S

By Mike Glegg

Last summer I was invited to change a 4' x 2' sheet of 18 gauge brass into the side tanks and bunker tank for our new club loco; the unfinished 'Bridget' that Ian bequeathed to our Society. As a constructional aid I was also provided with 28' of 1/4 x 1/4 x 1/16<sup>th</sup> brass angle, and the 4 sheets of Ken Swan's drawings covering the side tanks, bunker, cab, and associated bits.

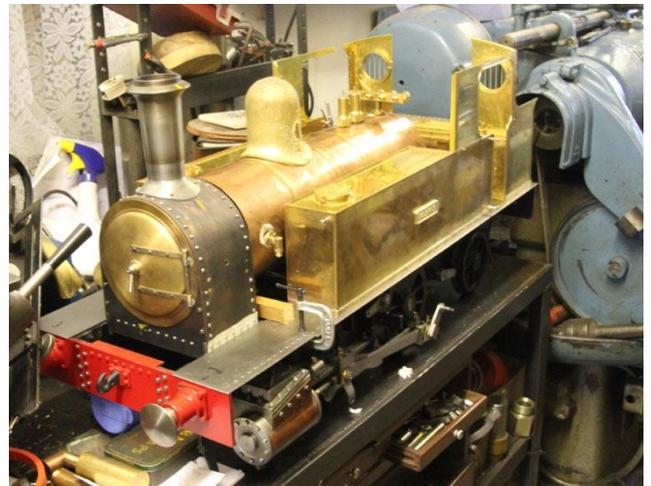
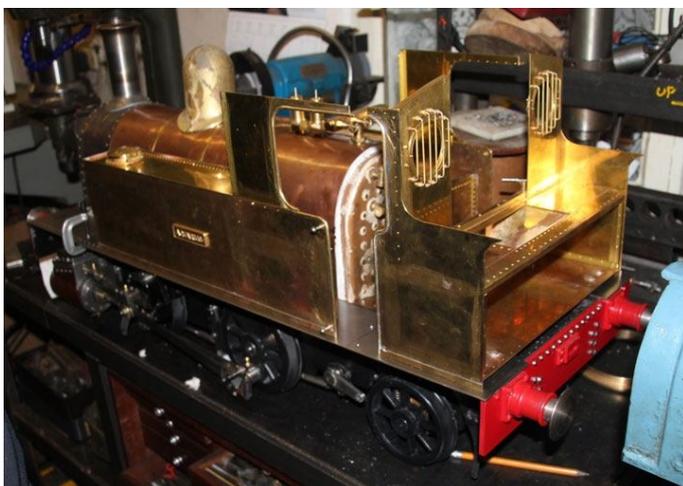
I do not have access to an accurate guillotine, and making sharp identical bends in 4 different bits of brass so that they are all perfectly matching is also *not* my forte! Fortunately I know a man that has and can (as they say), and I knew a source of very small brass rivets, only about 800 would be needed. Dave Wright produced most of the parts required from the sheet, cut perfectly to size, and the 4 side tank pieces bent as necessary to mirror each other; saving me many hours with hack saw and file.

Some time ago, Ian had made the decision not to fit an engine driven axle pump, so that reduced the internal tank plumbing for supply and by-pass return; and at the same time the intention to fit 2 injectors with the necessary bunker water valves had been added to the list. I decided to make the side tanks and their rearward extension into the cab, the 'seat' tanks first and so delay grappling with the bunker tank. Ken Swan's drawings maybe very good, but that doesn't guarantee simplicity!

There's no point in a blow by blow (ball pein) account of construction; suffice to say it was an interesting exercise to ensure rivet head accessibility for each subsequent phase of the process. The 2 side tanks are connected by a pipe under the boiler and the left seat tank has a balance pipe connecting it to the bunker tank. The upper cab and roof acts as a strengthening link between these 3 units, leaving a generous access space to the backhead from the driver's truck, although I suspect feeding the fire when under way may well prove to be something of a 'black' art!

The 2 injector water valves are fitted at the front of the bunker with their 1/4 turn operating levers reached easily from the driving truck; removable (marine style) filters are positioned under the running boards. An option exists to fit a tank water contents gauge just behind the right seat tank, and all 3 tanks share a vent pipe fitted to the bunker tank.

Finally, we need to thank the younger 'Martell', Andrew, for his *excellent* brass name plates fitted on either side. I happen to know they were milled from the solid using a 1 mm side/end cutter!!





**What do you do on a wet Sunday**  
This was taken after the successful 71/4 Gauge meeting

### Society Clothing

Society clothing is available from Ken Hodgson ([lodgegirl@hotmail.com](mailto:lodgegirl@hotmail.com))

or

Uniform and Leisure

Borrowdale Business Park

White Lund Industrial Estate

Morecambe

LA3 3BS

01524 388355

|            |         |                    |         |
|------------|---------|--------------------|---------|
| Polo Shirt | £ 11.10 | Sweat Shirt        | £ 13.14 |
| Fleece     | £ 17.94 | Prices include VAT |         |

### BRAIN TEASER ANSWERS:

- (1) People who live in glass houses should not throw stones.
- (2) A rolling stone gathers no moss.
- (3) Curiosity killed the cat.



**The 21<sup>st</sup> Sweet Pea Rally hosted by the  
Nottingham Society of Model and Experimental Engineers.**

Picture by Malcolm Ford

*See page 4 for write up*

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**In the next issue**

**The GL5 Rally at Gilling North Yorkshire by Stan and Alex**

**Anthony Woodruff writes about building his garden railway, titled How to Destroy Your Garden**

**How to Bend Sheet Steel Without Rollers by Martin Sams and Geoff Martell**

**More from Malcolm on his Britannia Class Loco**