

# NORTHERN DISTRICTS MODEL ENGINEERING SOCIETY (PERTH) INC.

MAIL: P.O. BOX 296, TUART HILL, W.A. 6060



CHRISTMAS 1989

SECRETARY - DICK LANGFORD  
- 3428049

## STEAMLINES

EDITOR - JIM CRAWFORD  
- 2756044

### PRESIDENT'S LETTER

Once again we draw to the end of a year in which we have seen progress at our site at Balcatta, increased revenue from shopping centres, fairs and fetes. Well attended meetings and a quality newsletter all add up to a society that is on the rails, due to the efforts of you the members.

Your committee has worked hard through the year to ensure things have happened and I thank them, and all of you who have been involved in the societies activities, for your efforts in 1989.

We wind up the year with our final meeting - a convivial one - which is a dinner at the Castle Hotel, North Beach.

I look forward to your company and meantime wish you and yours a most Happy Christmas and a prosperous New Year.

REGARDS

BILL

EDITORIAL

This time of the year sees our thoughts turn to feelings of goodwill towards others, and we all look forward to spending time with family and friends over the Festive Season. For some, whose origins are a long way distant, there will be fond memories of previous events and perhaps a certain nostalgia about things like snow on Christmas Day, and tucking into the pudding heavily laced with their favourite brand of turps and topped with steaming custard.

Coming back to Terra Australis, however, most of us will be doing and thinking similar things I imagine, but Christmas "dinner" may well be a gathering around the backyard barbie choking on sausage smoke, with a tinnie in one hand to reduce the effects of dehydration and the other kept free to ward off our national insect who is hell bent on zooming into any fundamental orifice that one may be foolish enough to leave unguarded.

Such is December in Perth. I will conclude by taking this opportunity to reiterate the words of our illustrious leader and wish you and your loved ones a peaceful Christmas together with a happy and rewarding New Year.

MUSINGS

In the last issue of this newsletter, I mentioned that our President's front door colour bore a striking resemblance to that which was used on G.W.R. rollingstock.

It seems that this quite innocent comment, on my part, has struck a raw nerve within "Marshall Mansion" and it turns out that there is a bit more to this intriguing matter than at first meets the eye.

In this regard, it is my pleasure to welcome Val Marshall to these pages wherein she is about to reveal all. (About the door that is!)

Flying Scotsman arrived in Perth during mid-September and our Society was privileged to be a part of the official welcome by operating the portable track at Perth Terminal.

Of course, being a "true-blue" and not having seen a 'Pommie' engine in the flesh before, I was surprised to see how large those driving wheels are when you stand over six feet tall and they tower above you.

Flying Scotsman and Pendennis Castle made a fine sight during their double headed tours with 4472 clanking away in the lead and a very trim Castle quietly doing her duty behind.

I was amused by certain segments of the British Press which got quite 'stropopy' about the Victorians re-gauging the Scotsman to travel over their 5' 3" network. I wonder what the reaction will be when news filters through to old Blighty that Scotsman had regularly run on the Perth system sharing facilities with the narrow gauge 3'6" suburban trains.

Congratulations to Willis Engineering for sponsoring the W.A. tour and also for a neat regauging job to suit our metals.

SOCIETY MEETINGSOCTOBER

Matters discussed included:-

- (a) Riverton Shopping Centre Run - a successful week. Highlights included loco drivers being knocked off their "perch" by youngsters extending arms through the open brickwork of the adjacent cafeteria - to the resourceful Mum who paid us \$20.00 to keep her offspring firmly seated on the train whilst she shopped in peace.
- (b) Balcatta Site - Toilet Block is roofed. Earthworks have been completed and the concrete pad is due for laying soon.

This meeting has gained a degree of notoriety and has thus been named the "Claytons Simplex" night. As was previously indicated, November was to be the month when all the Society "Simplexes" at various stages of construction, were to be displayed, however, some of our fraternity goofed (not altogether accidentally, I suspect), and we wound up with two meetings dedicated to these machines. A tribute perhaps to the popularity of Martin Evans design.

MODEL ENGINEERING

The October meeting saw the following:-

- (a) Dick Langford displayed two Simplex side tanks.
- (b) Lenn Young's Simplex was mounted on a fully adjustable builders stand that was an engineering masterpiece in itself. With all the cranks, gears and adjustables, an operators license would be essential.
- (c) Doug Baker's loco is nearing completion with Walschaerts gear in place. It isn't a Simplex, nor a Sweet Pea (in fact we don't quite know what it is!) However, it sure looks O.K. and claimed a place for the night by virtue of the Simplex cylinder set and coupled wheels.
- (d) Lindsay Adam's version is progressing well at the rolling frame stage. Lindsay also displayed an arbor press made from an automotive rack and pinion steering gearbox.

NOVEMBER

Otherwise known as the "real" Simplex night.

Matters discussed:-

- (a) Stirling Fair run was not a financial success due to track location, however, our Public relations made some positive gains.
- (b) Survey Results re meeting nights - President Bill advised

that the preferences were 41% for Saturday and 47% for Friday nights.

MODEL ENGINEERING - at the November meeting included:-

- (a) Milton Smith displayed his Simplex rolling frame. The smoke-box was machined from an old bearing - a real touch of the model engineer methinks.
- (b) Dick Langford's Simplex is to have an easily detachable cab to allow backhead servicing with 12" to the foot hands. Dick says that brass is now so expensive that he will consider zinc coated steel where practicable.
- (c) Lindsay Adams was there again too, with his Simplex and says that he is designing a single action Weir Type boiler feed pump.

#### A.R.H.S. RUN

Sunday 26th November saw four of us at the Bassendean Rail Museum carrying passengers on the straight track.

Some early hiccups occurred with loco power in the form of Eill Cooper's Sweet Pea "Lady Sue". Lindsay Adams and yours truly, both mug drivers with this machine had fun and games getting steam up initially.

We ultimately succeeded and "Lady Sue" battled valiantly all day with crowds of kids and a steep incline which needed frequent sanding before we went anywhere. To top it all off, we couldn't close the cylinder drains and had constant trouble maintaining steam.

After it was all over, we discovered that about 20% of the fire tubes were blocked with small pieces of coal that fell off the fuel bed. I think it's a tribute to the loco designer (and builder) that she kept working under such arduous conditions.

I also managed a short drive of Bob Burgess' baker gear equipped 3½"G 2-6-4 tank engine. A magnificent performer with a very snappy exhaust bark but did not have enough adhesion for the heavy loads of the day.

Bill Marshall enjoyed himself too, collecting fares and helping all the young Mums - he was the one with the white handbag!!!

#### TRADE NEWS

I recently had problems obtaining B.S.F. threads in Perth whilst completing a tool rest.

As Myford lathes and other English equipment use these threads, I advise that most sizes can be obtained from Albert H. Mullings who has recently moved from Leederville to Balcatta. They have a minimum charge of \$3.00.

Tracy Tools, regular advertisers in "Model Engineer" supply a

wide range of taps and dies and cutting tools. I can report that their service is excellent and prompt, prices seem reasonable and the tool quality appears most satisfactory with regard to M.E. taps and dies. A current catalogue is available.

Myford or other brand lathe owners with belt drives facing the prospect of splitting the headstock to replace same, are advised of a product manufactured in the U.K. which eliminates disassembly.

NU-T-LINK made by B.T.L. Ltd., Leeds (address available), is an adjustable link belt system that is supplied in 1.25M lengths. I understand that the product is polypropylene and is unaffected by oil and dirt and according to the manufacturers, does not transmit vibrations to the headstock.

The price was £13.98 delivered, and comes with adjusting key and full instructions. Mine has gone into storage until I wear out the original, but Mike Lynn reports that his is performing admirably.

Electric loco builders are advised that Hucar Engineering Supplies are offering an electronic speed controller to suit a wide variety of motors and supply voltages. These are priced at \$280.00 plus postage and packing. Details are available.

Finally, a recent book order from T.E.E. Publishing (U.K.) was accompanied by news of a new magazine called "Workshop Masters". A bi-monthly production, it encompasses reproductions of works penned many years ago by people such as L.B.S.C. and Edgar Westbury. Subscription is £14.00 for 6 issues.

#### FAREWELLS

Terry Skinner and family have departed W.A. and returned to the U.K.

Also Mike and Marion Bateman will be leaving us in the New Year to move to England.

We thank them for having shared their time with us and wish them every success in their future endeavours.

#### NEXT MEETING

The December meeting has been relegated to a Social function at the Castle Hotel. There is no G.M. in January and the next meeting will be in February. Because of a possible change to the meeting night, there will be further notification nearer the date. If in doubt please contact a committee member.

#### STEAMLINES LOGO

I feel that the time has arrived when we should consider a more appropriate design for our newsletter.

In this regard, I ask the artistic members in our midst if they would give some thought to a suitable logo which is distinctly "ours". I look forward to hearing from you.

SAFETY MATTERS

It is editorial policy to present issues affecting personal safety from time to time. In this instance, I was thumbing through one of my chemical manuals and came across a material frequently used by model engineers that in itself is quite safe, but at elevated temperatures is hazardous. I offer the following details:--

POLYTETRAFLUOROETHYLENE

Known also as P.T.F.E. or FLUON

INDUSTRIAL APPLICATION

As a fabricated plastic product in the chemical, electrical and engineering industries.

DANGEROUS PROPERTIES

P.T.F.E. is incombustible but at temperatures over 400°C (752°F) it decomposes into its monomer and other fluorine containing compounds. Toxic vapours are emitted. A particular danger exists when smoking in the presence of airborne particles.

MEDICAL EFFECTS AND TREATMENT

Inhalation of the vapours may cause a severe feverish chill and necessitate some days in bed. Medical advice should be sought at the earliest opportunity.

FOOTNOTE

VITON 'O' rings are made from P.T.F.E.

FOR SALE

A TAIG 2 (PEATOL) Micro lathe, standard kit. Boxed and unused.

Price - \$359.00

Contact Bill Cooper on 447 0055

Whilst wandering through Brown's of Guildford last week, I noticed a post drill which appeared in reasonable order. Capable of manual or power operation, the unit was priced at \$85.00 and may be of interest to members with a "bent" for restoration projects.

BEHIND THE GREEN DOOR

Usually, I steer clear of all mail directed to Bill that has anything to do with steam engines, mainly because it's all 'Greek' to me, but as the issue of "Steamlines" was addressed to Bill and myself, I opened it.

I saw the reference to the green door and remembered.....

Once upon a time our life together was - if not exactly quiet

and peaceful - well, settled, predictable - some would say even boring perhaps; the 'phone would ring two or three times a night, usually for me, some friend wanting a chat. The house was mine too - my school books filled the study, my car was in the garage - nothing unusual in that, you say - the spare room was used for guests and our bedroom looked like a bedroom. Then Bill joined N.D.M.E.S. and our lives changed.

The spare room now houses my school books of which there are about 5 million, so visitors (and we have scads of them) pick their way through books before they reach the bed.

The study, once my domain, is now out of bounds for me, has been changed into something vaguely resembling a Railway Booking Office but much less attractive!

The dreadful wallpaper which was put on by the previous owners, who were probably having a nervous breakdown at the time, remains, because Bill "loves it", to say in decorating parlance it is "busy" is understating the obvious, but on top of the paper hang dozens of prints of steam-trains. One, almost life-size - the result is dazzling - on one wall ticks a station clock, and on the coffee table are scattered an abundance of "Model Engineering" and "Engineering in Miniature" etc., for his N.D.M.E.S. pals to ponder over. Bill says he has further plans for this room - I shudder to imagine !!!

My car is no longer snug in the garage, but rusting quietly outside, for in the garage - which is now a shrine which only Miniature Engineers can enter - are rows and rows of strange metal shapes and millions of other useless bits of metal.

The latest purchase delivered by an articulated truck and a CRANE (I'm not kidding), is a milling machine. This resembles the brain scanner from Royal Perth Hospital and probably cost as much.

Bill is very vague about prices when I gently enquire how much all this expensive equipment he has gathered around him has cost. He mumbles and coughs and tells whopping lies, because even I am not stupid enough to believe that a brand new green milling machine came from Doug Baker's place because he had too many and begged Bill to take one of his hands !!!!!

The mention of green brings me back to the door that was mentioned in the news letter.

Now normally, when I make a simple request to Bill like "will you fix the blocked sink?" or "will you buy a longer hose for the front garden" - as it wont reach past the wisteria and everything west of this dies every summer - he, like most men, completely ignores the request or promises faithfully to do it next weekend. So, it was a surprise when one Sunday morning I said "Would you paint the front door - it's down to bare wood in parts," he casually looked up from the book he was reading "How to build a Steam Train in the Lounge", and mumbled "Yes, I'll do it next weekend - what colour?" (he always wants details of things he doesn't intend doing.)

"Dark Green," I said.

"Green!" His eyes lit up.

"Yes, dark green," I said, surprised at his interest.

"Certainly" replied Bill.

Naturally, I thought that was the end of the subject for a year or two.

That same Sunday afternoon I went to the beach for a walk with a friend - we were gone about two hours and when we returned my friend said, "My God! What's Bill done to the front door? It looks as if the cats been sick on it." It did too - I agreed.

I eventually tracked Bill down and gently and quietly asked him why in hell the front door was that NOXIOUS COLOUR.

"NOXIOUS! It's Great Northern Green" he said.

Because children may read this magazine I wont write down my reply.

But I had my first win. The door is now dark green - I love it but Bill almost wept as he repainted it. Apparently Great Western Green hasn't the same appeal to him as Great Northern Green - but it sure keeps the cats away.

Thanks to VAL MARSHALL for this enlightening insight.

-- CONCLUSION FROM PAGE 10 - PROFILE, BOB BURGESS.

The connecting rod passes inside this tube and swings within same to transmit the reciprocating motion of the piston/tube assembly to the rotating crankshaft. Bob tells me that this cylinder design results in a loss of 17% of piston surface area.

I will not divulge any further details at this stage as I am sure that Bob would like the opportunity to display the model and discuss various aspects at a general meeting of our Society.

As further evidence of Bob's design development prowess, I am sure that many of our colleagues have seen and admired his 3½G 2-6-4T locomotive as a static display and working on the track.

I wonder how many others, like me, did not initially look closely enough at the valve gear to see that it is not built as per Martin Evans design at all.

It is in fact, Baker gear, the development of which Bob sorted out on paper before tackling construction. This Pom loco with Yankie mechanicals has lots of drawbar pull and barks in a very convincing manner. It's worth another look next time you get the opportunity - I'm next in line for a drive.

Well, all good things must end, and soon it was time for me to depart for the delights of cosmopolitan Morley.

My sincere thanks to Bob and his good wife for spending an hour or two and sharing with me a little of their lifetimes experiences.

*Seasons Greetings to everyone - Ann Crawlan!*

PROFILE - BOB BURGESS

I was privileged to visit Bob at his home in October this year. We spent a most enjoyable afternoon discussing "our" topic, examining products of his craftsmanship, and gaining a little insight into Bob's personal history.

For the benefit of fellow members, and with Bob's permission, I will share some of that afternoon with you.

Bob Burgess, of course, is a Pom. In his words "I was born in London and once a Londoner always a Londoner." He takes obvious pride in his origins and fair enough too!

It seems that the family eventually moved from London to Bognor on the U.K. South Coast and there they stayed for many years.

It was in this location that Bob trained as an Instrument Maker, a craft that developed all manner of light engineering skills which he has put to obvious good purpose. He worked for a considerable time with agricultural spraying machines and one of his miniatures, in the form of a scale model sprayer, still resides in a glass case within the London Science Museum.

Bob tells me that he has had a lifelong interest in railway locomotives and has spent his fair share of time chasing steamers all over the place and "botting" footplate rides whenever possible.

He personally knew the old master "L.B.S.C." (Curly Lawrence), and even visited him at Purley Oaks and did a lap or three around Curly's back yard track driving "Annabelle". Apparently Curly was most helpful when Bob was building one of his first locos. It seems that the boiler design was causing some consternation, however, an inspection by the "master" soon set things right. Bob and Curly continued to communicate on a regular basis for a considerable time.

Bob and his wife decided to move to a warmer climate after having resided in the U.K. for 62 years. Apparently the decision was influenced, in part, by offspring having emigrated previously to W.A. and singing the praises to the folks "back home".

Bob did manage a quick look at OZ during the war years, when he was here for the installation of a radar system on Magnetic Island. The memories of that stay apparently helped with the decision to go 'down under'.

Following his arrival in Perth, Bob worked with Atkins Carlyle, repairing all manner of appliances until his retirement, which incidentally, came a year late, as his employer was somewhat reluctant to let him go.

As many members would know, Bob has produced some excellent miniatures including locomotives in 2½"; 3½" and 5" gauges together with his traction engine (complete with hand pump hidden beneath the coal bunker), and a large steam powered tug boat. Many times these models have been displayed during our shopping centre exhibitions and have attracted much admiration.

Bob tells me that for many years his machining was done on a treadle lathe which he bought for £19.--. and paid off at ten shillings a week. His 3½" Maisie was constructed with the aid of this machine 42 years ago! I felt exhausted at the thought of it. Incidentally, the treadle lathe is still in the family (presumably as a hedge against rising S.E.C.W.A. charges and sometimes erratic supplies.)

These days Bob uses a Perfecto Lathe which is a little smaller than a Myford 7 but capable of some remarkable work, as is obvious from the end products - and no, he doesn't pedal this one, just in case you were wondering.

The workshop is a very small steel shed in which I had some difficulty in standing upright, but Bob seems to cope admirably, although he did admit that he would like a little more space and he tends not to venture within very often during the hot summers for obvious reasons.

Bob is a craftsman who prefers to make all of his mistakes on paper. He tells me that he normally draughts a project out before any swarf starts flying. This approach has paid dividends when he has been developing some of his more unusual projects where the design details were unavailable. This is certainly true of his current effort.

Members will no doubt recall the Maritime Museum salvaging the engine from the S.S. Xantho a couple of years ago. The ship went down at Pt. Gregory (between Geraldton and Kalbarri) and rested in 15 feet of water for a century. Apparently she was laden with iron ore and was involuntarily taking on copious amounts of sea water at the time. The owners did not wish to dump the iron ore to lighten the ship, and so eventually she went to the bottom whilst making a dash for port.

Bob says that the S.S. Xantho was one of the first iron clad steamers in W.A. She was originally a paddle wheeler but then fitted with the subject engine and a propellor drive about 1865.

The engine is most unusual being a horizontal trunk type made by John Penn and Son, Engineers, Greenwich. The salvaged powerplant has been residing in a tank of preservative solution for a couple of years to stabilise its condition. Damage has been too extensive to permit complete restoration and so it is intended to display same as a static exhibit.

Bob has been invited to construct a 1/6 scale working model of this engine and has been faced with the daunting task of developing his plans and specifications from the remains of the original engine.

I can report that much progress has been made and I have been able to view several components of the model in Bob's workshop. The most striking feature to me is the cylinder/piston design which is quite different to any other I have seen.

In brief, the engine has a short stroke in relation to the bore and the piston is actually in the form of an annulus. The piston is attached to a central tube, the extremities of which pass through glands in the "top and bottom" cylinder covers.