

“PAGE TURNER ACROSS THE POND”

This little story consists of the e-mails exchanged between Ralph Adams in Canada and Robbie Bowie in Scotland and apart from the correction of some minor typographical errors, are accurate copies of the messages exchanged.

The saga concerns the acquisition of the component parts of a Mk23 Page-turner manufactured by Caithness, Sutherland, & Northern Isles Panel of REMAP (Scotland), and the incorporation of this kit into the first machine of this type assembled in Canada.

Also involved in the operation were:-

Bruce Carr- Chairman of the North Herts. Panel

Don Clarkson:- Chairman of Caithness, Sutherland & Northern Isles Panel

Mrs Maureen “L” our courier extraordinary who’s short service was invaluable.

From: [Adams](#)
To: [Robert Bowie](#)
Cc: [Don Clarkson](#) ; [Bruce Carr](#)
Sent: July, 11, 2008 23.41 .
Subject: RE: REMAP Page-turner

Mr Bowie:

I am writing to request the drawings/plans/photos to build one of the page-turners you have developed.

However, I should explain that this is not a REMAP project and what I'm proposing to do with it. In Canada we do not have REMAP, but a similar organisation called TETRA was started a few years ago. I live in the Interior of British Columbia in a town (large by our standards, small by yours, 80,000) called Kamloops; we do not have a branch of TETRA yet and I have been trying for several years to get one going. I am in a classic "catch 22"; before the parent organisation starts a branch they need to have a large enough group of committed volunteers, but it is very difficult to get people to sign up to something that does not exist yet and make a commitment of time (required by TETRA) before they are able to see the society in action.

My plan is to drum up some volunteers by setting up a booth in some of the local tool/DIY shops to get more interest in the society. I hope to get enough volunteers to get a branch sanctioned for Kamloops. When I saw the page-turner, I thought it would be a perfect display for the purpose. It is very impressive to watch, it showcases the range of skills needed, and it will certainly attract attention.

One that explains what this thing is, who built it, and who uses it, then another panel describing the TETRA organisation and its goals vision blah blah, and then the third making a pitch for volunteers. I will probably have to ask you some more questions as we write that.

Cheers,
Ralph.

----- Original Message -----

From: [Adams,](#)
To: [Robert Bowie](#)
Sent: Monday, February 02, 2009 18.68
Subject: RE: Photo

Robbie.

Robbie, I have trying to write a note all morning. I have given up. Nice talking to you yesterday. Here is a picture. I would like to ask you some questions about Inventor at some point.

Cheers,

Ralph.

<<Ralph_with_page-turner_small.jpg>>

----- Original Message -----

From: [Adams,](#)
To: [Robert Bowie](#)
Sent: Friday 06 , February 2009 00.47
Subject: RE: More photos

I will keep an eye out, I trust you did not send it to Mr. R.Adams Esq. this time?

I am not sure how the "plans" for REMAP projects are distributed, but it appears there must be plans or photographs that would enable a person in another location to build one. It also says on the REMAP website (or one linked to it) that a set of parts is available. I am not requesting a set of parts, but just the plans/photos if they are available. I have access to a well equipped workshop (lathe, mill, welding, electronics etc), and I have offers of help from a sheet metal fabricator (who also makes suits of armour for the SCA |-)) and an electronics whiz who can programme Picaxes (I have only used the STAMP processor).

I realise that this is a rather odd request, and I shall not be at all offended if it is not feasible to supply the plans to me.

Regards,

Ralph Adams

To: Adams
Cc: Don Clarkson; Bruce Carr
Sent: Saturday July 12 08:26
Subject: RE: Page-turner

Dear Ralph,

Thanks for your interesting e-mail and for your request for information on the page-turners. If you can leave it with me for a couple of days I shall arrange to make up a package of drawings, photos and video clips for your information.

The drawings were created in Autodesk Inventor 11 and solid models could be supplied in .sat or .step files as well as 2D working drawings if these are any use to you.

Kind regards meanwhile,

Robbie

----- Original Message -----

From: [Adams,](#)
To: [Robert Bowie](#)
Sent: Saturday, January 29, 2009 01:29
Subject: Encouraging news from TETRA HQ

Robbie:

Why don't I call you on Sunday, that's when I usually call my uncle in London. I think we are currently at Zulu+8, so if I phoned you at noon here it would be 8:00pm. I have a long-distance plan that gives me very cheap rates to my choice of two countries, so I have chosen the UK and South Africa. Sorry for the delay in answering, all of a sudden TETRA has woken up; I think it was the video clip. I think they now realise that this is a good idea for building interest in the organisation. I really don't think the non-technical people in Vancouver running the show understood that to get the interest of people who want to build things, you need to show them something like the page-turner, not a thing that clips on the side of a wheelchair and holds an umbrella, as important a device as that is. Anyway, I have been on the phone every lunch time with them and there are already three volunteers in Kamloops, just based on circulation of the video clip. They have asked me to be the coordinator of a Kamloops chapter until they can locate a volunteer with more experience in the health fields; I have agreed. I also made a pitch to them that organising completely independent groups in our small communities did not make sense, that with the internet and cheap phones we could work together across larger distances, again, your page-turner being a good example. I have a meeting on Friday with the graphic artist who has offered to help with the display. Currently the plan is for a three panel display.

From: Robert Bowie

Sent: Monday, January 26, 2009 1:48 AM

To: Adams

Subject: More photos

Ralph,

It was Burns night yesterday and when I had a glass in my hand I tried to phone you remembering that I had your number from Maureen's visit. It would have been lunchtime and afternoon at your end but there was only an answering machine so you were perhaps out walking Baldrick!

Anyway I wanted to say that the little booklet of our e-mail conversations is now all converted into an A5 booklet and looks like an entertaining saga. I have included the photos relating to the text but still need a photo of your goodself, preferably with the finished machine. I would like to incorporate both our photos with machines into the artwork of the cover so that I can complete the project and make a small print run, so your help would be appreciated.

Kind regards,

Robbie.

To: Adams

Cc: Don Clarkson; Bruce Carr

Sent: July 14, 2008, 09:04 AM

Subject: RE: Page-turner

Dear Ralph,

Further to my last e-mail I have now had an opportunity to discuss your request with my two colleagues and would like to give you the following info to help your decision on the assistance you would like.

Firstly the background of this product goes back some years now and the project has been jointly developed between ourselves here in Scotland and the North Herts. panel in England. Our requirements were different, as were our manufacturing facilities, where we had good metal working ones and N.Herts were mainly wood based.

The two machines are similar having the same operating sequencing and matching electronics although we use a P.C.B. and each panel makes their own IR detectors. In general N.Herts has produced more machines but simpler design whereas we having a different situation have fewer clients but a greater range of requirements and have produced different machines in each case.

I attach a file with Operating Instructions for our Mk23 machine and a photo of the latest machine from N.Herts. Full drawings can be supplied for either the N.Herts ones being probably better documented. We both would suggest that we supply some items such as the rubber rings, IR detectors, and in our case a P.C.B. We could supply some of the machined parts as we have surplus stock and any other components if you are unable to source locally.

Anyway have a thought and see what you wish to do, I shall put a CD in the post today as the video files are rather large for e-mail transmission.

Incidentally Bruce Carr says he has visited your town - it is indeed a small world.

Regards,

Robbie

P.S. If you have not located it our dedicated website for the page-turner it is www.spanglefish.com/remappageturner

From: [Adams,](#)
To: [Robert Bowie](#)
Cc: [Don Clarkson](#) ; [Bruce Carr](#)
Sent: July 15, 2008, 00:31
Subject: RE: Page-turner

Dear Robert, Don and Bruce:

Thank you for your offer of help with my scheme. Having looked at the pictures, I think that the Mk23 would be better for us. First, it looks a bit more impressive, and second my skills are in metalwork, (as a research meteorologist, and as a helicopter mechanic). If you could supply the special bits that would be wonderful, on the condition that I reimburse you, as we are not yet a registered "non-profit" as we call it here. My mailing address is:

The brass arrived for the RH clamp, but I have not made it up as I was drafted into installing a new sink in our basement: how many people can say they have, in a single day, turned wrench on both a gorgeous swiss M420 microscope and hundred year old cast iron sewer pipe (with lead lagging no less).

I shall build it early this week and then send you a nice photo of the turner and I and variants. It is still working nicely, and I have been "reading" a text book with very thin gloss paper. I shall be interested in your designs for the "magazine" version. I can see that being very useful.

As I learn more, I starting to think of more questions. I will send them with the photos. However, one I have been pondering before I cut into the brass is this. Am I correct that the RH clamp is used to hold the cover of the book to the base, that is, unlike the LH clamp is never has to clamp some of teh pages. The reason I'm thinking about this is that I have been experimenting with how the temporary supports are used behind the LH side of a book as in you intructions when reading the first part of a book, and wondering if you do the same on the RH side dufing the last part of a book. Everyone who has seen the thing working is amazed, so I am convinced that its first task of getting volunteers and interest in TETRA will be a success. All we need is some response from TETRA, I emailed them over a week ago saying that the turner was running and I now needed to get the display organised and I need their logo's promotional materials etc no response. I was correct that Inventor Cad also have a much cheaper version that is essentially just the version form a few years ago. They are selling Inventor 11 for about \$300 C. on at least one site here. However, I know nothing of CAD and need to do some more research first, one issue is what platform it runs on, VISTA etc.

----- Original Message -----

From: [Adams,](#)

To: [Robert Bowie](#)

Sent: Monday, January 26, 2009 6:11 PM

Subject: RE: More photos

Robert;

You are probably correct, but thank you for trying, we were out taking Balders for a walk from about noon till tea-time. We were taking advantage of the first sun we have had in three weeks. Our interior valleys are prone to a nasty weather condition called valley cloud. It is, technically, mixing cloud formed at the top of the valley when the air within the valley mixes in a shallow layer (a few hundred metres) with the air mass moving over it. This means it is beautifully clear high on the plateau, but there is a persistent layer of filling the valleys. Anyway, it drives everyone crazy after a while.

By coincidence, I tried to find your number on the internet, but was all variants of Robert Bowie, Scotland Caithness etc resulted in only a list of deaths, which I thought was odd when searching what claimed to be a telephone book. What is your number?

We celebrated Burns night with the Lagavullin, some very good Stilton, and some shortbread. We did not do the dinner as Rita refuses to eat haggis and it seemed a shame to cook it for just Balric and I (then add all the whinging about the smell and the lectures about various food borne diseases). However, I have a small (the size of a cricket ball) one hidden in the freezer. When she goes away next we will feast on haggis, bashed "meeps" and potatoes |-).... and then, probably have too much scotch, and get choked up reciting "A man a man".

Kamloops, BC

Canada.

I think the best bet would be to send to the drawings and any other material on a CD first, and then I could get back to you about which parts are going to be hard to source here. If you are still using castration bands, we have those here, I told a vet acquaintance of mine about your novel use for them and she showed me some. I assume the advantage over O-rings is that they are so "stretchy"?

Regards,

Ralph Adams

P.S. I hope that Bruce's visit to Kamloops was a good one. I walk home and I often come across groups of British tourists wandering around trying to find something to do in the evening. They are always associated with the "Rocky Mountaineer" train excursion. I think the organisers take them for supper, and then drop them off at local motels assuming that they are going to stay put until they get back on the train the next morning.

From: Robert Bowie

Sent: Tuesday, July 15, 2008 9:26 am

To: Adams

Cc: Don Clarkson; Bruce Carr

Subject: Page-turner

Dear Ralph,

Thanks for your message, I will send CD tomorrow with some drawings. This is not quite straightforward as the Mk23 contains a number of assemblies used in previous versions and I will have to check them all out before sending. In addition as I keep thinking of this I see additional components that are purchased here and might not be available to match the machined components over with you. However give me a few days and I will check this all out for you.

Regards meanwhile,

Robbie

Thanks for your message and missing you for a walk for Baldrick is quite O.K, we can try next weekend perhaps. The early evening for us is lunchtime for you and as we bed early-old folks you know, this sort of time will be best.

You ask for my number, it is for you 44 1862 810 533.

Re the R.H. clamp,; for some reason the book support never seems to be needed for the second half of the book which is always clamped to the cover. The packer is not always needed for the L.H. but I always find it better for the first quarter.

The cheaper Inventor is probable as it will not run on Vista it requires XP and I stick to this as Vista has other problems and all my software runs well on XP. Maybe this is something we could discuss when we phone.

Regards meanwhile,

Robbie

From: Robert Bowie
Sent: Monday, January 26, 2009 1:48 AM
To: Adams
Subject: More photos

Ralph,

It was Burns night yesterday and when I had a glass in my hand I tried to phone you remembering that I had your number from Maureen's visit. It would have been lunchtime and afternoon at your end but there was only an answering machine so you were perhaps out walking Baldrick!

Anyway I wanted to say that the little booklet of our e-mail conversations is now all converted into an A5 booklet and looks like an entertaining saga. I have included the photos relating to the text but still need a photo of your goodself, preferably with the finished machine. I would like to incorporate both our photos with machines into the artwork of the cover so that I can complete the project and make a small print run, so your help would be appreciated.

Kind regards,

Robbie.

From: Robert Bowie
Sent: Tuesday, January 27, 2009 7:46 AM
To: Adams, **Subject:** Re: More photos

Ralph,

From: Adams
To: [Robert Bowie](#)
Cc: [Don Clarkson](#) ; [Bruce Carr](#)
Sent: July 26, 2008 1:41
Subject: RE: Page-turner

Dear Robert:

The CD with the drawings and the video clips arrived in yesterday's mail. Thank you. I need to spend some more time reviewing them, but my first impression is that all the wooden and metal parts are well within my capacity (I will have to brush off Tubal Cain's book on making springs).

I have also spoken to Pat Tweedie, the national coordinator for the TETRA society in Canada, they are keen to use the page turner as part of a display to promote the society in Kamloops. If I am successful, they are also interested in using it in other communities. Also, she was very interested in the page-turner as they have several requests for them from across Canada, her view was that there would be a constant need for page-turners and learning to build them would be useful.

Obviously, if we are going to end up making more than a few of these, it would make sense to put time into finding locally sourced substitutes. However, my experience in the past has been that it is far easier to do that if you have a working unit to the original specs on hand. I feel rather cheeky asking, but could you supply me with one set of the manufactured components. From my current understanding of the drawings this would mean: the motors, the belts and pulleys, and the circuit board/electronic components. I will, of course, reimburse you or REMAP for all your expenses. There are some items that I may be able to get directly. I think there would be no problem with ordering from Maplins, so if it is easier, you could send a list of the supplies that you source there and I can buy them directly (after a quick look this evening I have not found a supplier of the MFA Como Drill motors in North America). We do not have Wixroyd products in Canada, but we have very similar items (we use something that looks the same to mount our Ozone monitors into the instrument racks). Electronic components are not a problem unless they are exotic, and there is a very good supplier of microcontrollers that sells to the amateur robotics crowd. They do sell the Picaxe system.

After work tonight I downloaded some photos of the Mk23 from the web-site you pointed me to, and over the weekend I will spend some time making sure that I understand the traversing arm and the other details.

I will get back to you in a few days.

Ralph

From: [Adams,](#)
To: [Robert Bowie](#)
Sent: January 19, 2009 5:34
Subject: 57 e-mails later

Robbie;

The person who should be most relieved is you! Apart from the delivery and polycarbonate fiasco's, your end went perfectly. A tribute to your instructions and drawings. Don't worry about the video, it was a joke. I'll send you a clip on a CD for the records without the bottle of Lagavullin prominently displayed and the pipe music in the background. The only recording I could find in my collection was a disk of early Scottish music (yet another vice of mine, mediaeval and renaissance music, I have so many vices!).

The turner is still working, I have now run an entire paperback through it and I have moved on to a larger hardback with softer paper. I have several other projects in the workshop, most urgent a microscope that I promised a colleague that I would modify, so I press the button each time I work past the turner. When something unusual happens I try to learn what is happening and how to correct it.

I looked up Inventor cad, but it appears to cost \$6000C, I assume that there is an older version that is sold at a lower price. I will look into that after the M420 is complete.

Would it be appropriate for me to sent a note to Bruce at the North Herts group thanking them for their help?

Cheers, and Happy Burns day next weekend.

Ralph.

From: Robert Bowie

Sent: Monday, January 19, 2009 6:33 AM

To: Adams,

Cc: Don Clarkson; Bruce Carr

Subject: 57 e-mails later

Ralph,

Thanks for your e-mail with the splendid news a satisfactory completion of a saga of 57 e-mails, so far, this being 58. I have collected them into a couple of Word files and will try to make them into a little booklet which should be a splendid vignette of some entertainment value.

We have been busy developing a new type for magazines which requires a different technique to handle softer paper and I will send details shortly when I have the first production machine built. The prototype works fine.

Anyway congratulations in joining the page-turner builders association and I am sure Rita will be breathing a sigh of relief that you have at last completed the project. I did not get too good a run at your video as my computer was not fast enough and it was a bit jerky but when you are complete with final adjustments you could perhaps let me have a photo and one of yourself for inclusion into the "book".

Kind regards and well done,

Robbie

From: Robert Bowie

Sent: Monday, July 28, 2008 10:45 AM

To: Adams,

Cc: Don Clarkson; Bruce Carr

Subject: Re: Page-turner

Dear Ralph,

Thanks for your message .It is interesting to read the comments of your TETRA organisation.

I will prepare a kit of parts for you and also I will provide a detailed spreadsheet of all the bought-in components and their suppliers. Regarding your comment on making springs this can certainly be supplied as we had 100 specially made of which there are a good 60 still unused.

Bruce Carr wishes to send you a complete set of drawings and parts list for the N.Herts version of the machine. This will be helpful in that it will be better documented than ours (Bruce was a big company man! whereas I had my own small business.), and although interesting for panels with limited metal working would not be interchangeable with the drawings that I sent to you. N.Herts do not currently use the P.C.B. and are experimenting with 7.5 volts driving the motor with the Picaxe running at 6 volt maximum. We are looking to incorporating an extra chip to allow this facility on the existing P.C.B. and N.Herts will probably then use the same board. Their programme at present is slightly different from ours so be aware of that if comparing the two machines.

Kind regards meanwhile,

Robbie

From: [Adams,](#)
To: Robert Bowie
C [Bruce Carr](#); [Don Clarkson](#) ;
Sent: July 29, 2008 00.32
Subject: RE: Page-turner

Robert:

Sorry for the long delay, work is a bit of a circus this week.

I had some time over the weekend to look at your drawings carefully and I have spent some time figuring out how the parts fit together, my initial confusion over the traversing arm was because I had somehow missed the note in one of the drawings showing that the traversing plate is captive on the belt. I was looking for something more complicated.

Given developments (i.e. that TETRA is interested in these as more than my original "promotion" project to get a chapter going), I would be delighted to get the drawings for the other version from Bruce. The fact that it uses slightly different methods of construction may be of importance here. It seems from some conversations I have had with various TETRA members over the last week, that there are not that many machinist types involved; this is probably because there is not really a model engineering community here (or at least nothing like UK has) and so most people with home shops have wood working and welding as their primary activities.

Regards,

Ralph.

From: [Adams,](#)
To: [Robert Bowie](#)
Sent: January 16, 2009 5:26
Subject: It lives, master- it lives

Lagavulin was brought into action at 19:50 PST last night. The only problem I had after connecting up the power supply and rotating the micro-switches, was that the traverse motor was running in the opposite direction to the way it should. I simply reversed the motor leads on the circuit board and all was well. Your instructions were very clear and the pageturner worked on the second try, I had to raise the book a bit from my first setting. I made a 30s video, but I was not sure what kind of connection you had, I have placed on my work FTP site, it is 10Mb.

In your honour the book is by a Scot, Ian Banks, one of his marvellous SF books.

I will send a clip to TETRA (without the inside jokes), a begin the process of building the display. Anyway, have to go do some work now.

Cheers,

Ralph

From: Robert Bowie
Sent: Wednesday, January 14, 2009 7:12 AM
To: Adams
Subject: Re: At last ...real progress.

Ralph,

Thanks for the message and for the photos. It looks really good, I only wish we could source the high quality plywood that you obviously can. Ours is cheap Asian rubbish and even using marine quality is not up to scratch. I like your taste in Islay malts I shall happily make a return toast when you are turning a page- in my case the current bottle in the kitchen is the Orkney "Highland Park" also a grand dram!

Waiting in anticipation for more news,

Robbie

From: NHremap
Sent: Wednesday, July 30, 2008 11:34 AM
To: Adams,

Cc: Don Clarkson; Robert Bowie
Subject: RE: Page-turner

Hi Ralph,

As promised attached is a mechanical design package for the Page Turner. To avoid confusion all the drawing for this model are shown in the title block as North Herts. Panel. I will get some better assembly drawings together but I am not as expert as Robbie on the 'Inventor CAD' so I wont be able to complete these until I get back from holiday at the end of August.

We are currently getting together a design package for the controls which should be available within the next few weeks. Don't hesitate to call me or Email me if you have any queries.

Regards

Bruce

[Bruce Carr]



From: [Adams,](#)
To: [Bruce Carr](#)
c: [Robert Bowie](#); [Don Clarkson](#) ;
Sent: July 31, 2008 00.32
Subject: RE: Page-turner

Bruce;

Thanks for the drawings and photographs, I certainly don't see anything "un-expert" in them, they are beautiful. Although I was taught drafting at school, I have never actually drawn anything except freehand for myself or "real" machinists. However, I have discovered how to get them to accept my drawings and not complain, I always put explicitly large tolerances on all dimensions unless it is really critical that they are to size, they always like you when you dimension something as 14" (+3-2") |-).

I am very interested in your design for controls and would like a copy when they are complete. If, as I hope, this page-turner project takes off here, we will need to do some work on adapting the controls and circuits to locally available components and experts (no-one here seems to have used the picaxe controller, the Pic or Stamp seem to be the favourite here)

Thanks for all you help.

Ralph.

Hope this makes sense.

Cheers, Ralph.

P.S.

As for plywood and Islays: yes the only plywood that is any good is the Baltic stuff, and even that is not as good as it was. It now comes from Russia (an assumption, there are cyrillic characters stamped in the corner). It used to come from Finland and we could get it in thicknesses down to 3mm (4ply no less). I first came across it when I was in the aircraft trades school, our training was fun but reactionary, our instructors still pined for WW2, so we spent a lot of time repairing mosquitoes and balancing carbs on Merlin 12 cylinders. Most of them were ex military and used the most convoluted language, I recall one incident along the lines of "Mr Beech, what is the difference between a 'wooden' spar and a 'wooden type' spar", to which there is an unintelligible 3 minute response followed by "Mr. Beech, are you suggesting that there are wooden spars which are NOT made of wood!". We do not get that many Single malts here, and as they are expensive and few people drink them (when I met Rita we had to have a chat after I caught her putting single malt into hot chocolate) so I stick with the ones I know. I certainly seem to like the ones that taste like "seaweed and soot" as one detractor put it. I was introduced to Lagavullin in a very picturesque fashion, there was this young woman (well before I met Rita, and I was young as well), who claimed to be part of the Royal Stuarts, and we were sitting on top of Arthur's seat watching the sun come up, and she drags a bottle out of her hand bag and we drank it out of the bottle.

1. When I was wiring up the micro-switches I noticed that the way the limit stops are mounted means that the rollers on the micro-switches are not used. I have attached a photo showing the arrangement I had. After looking through the assembly drawings, I concluded that that is correct, the rollers face away from the reader. I wired the switches so they were normally open, both switches in parallel, all four leads carried out to the circuit board.

2. I want to be sure about the connections to the circuit board. I refer to your photograph "pcbopen.jpg" which shows the board with the wires labelled. may I assume that "1" indicates positive and "2" indicates negative. I am assuming that polarity on the motors is important as they must be reversing under control of the processor. I have attached a scan of the sketch in my notebook.

3. That the start switch is the external switch that initiates the cycle.

4. That the order of the limit switches is not important. I.e. limit switch 1 may be either the left or right.

5. This may be a spectacularly stupid question, but what voltage does she take? Based on "boughtin1.xls" it needs 6V (DC I assume) rated at 500mA. However, I'm confused about how it is connected to the circuit board. The way I'm interpreting the drawings is that the circuit board provides power to the IR detector via the connector that is above the connector strip at the RH side of the board in your picture, and that the main power is supplied through the stereo jack that is in the centre of the LH edge of the board as shown in your picture. What is confusing me now is that in mk23operate.doc, figure 5, it appears that the power (the wall-wart) is connected via the fuse to the other connector, where is the power for the IR detector coming from, or are they connected in parallel. I.e. 6v from wall wart goes to connector and to IR detector. I have attached two diagrams to show the two scenarios.

From: Robert Bowie

Sent: Friday, August 1, 2008 9:22 AM

To: Adams

Cc: Don Clarkson; Bruce Carr

Subject: Page-turner update

Ralph,

I have machined most of a full kit for you and now only await material for the quadrant plates as I had none in stock. This is promised for early next week and I will only need a day to complete.

I attach a list of the bought-in material with costs and U.K suppliers, some of which will supply direct to you if you wish. If you could kindly let me know which ones that you wish to source locally, I can arrange to include the others with your kit. I shall also make up 3D arrangement drawings and photos to assist your assembly and hopefully have these in time for your receipt of the components. The list is on an Excel spreadsheet which I hope you can read- if not let me know and I will drop it into a suitable format.

Kind regards meanwhile,

Robbie

From: Robert Bowie
Sent: Monday, August 4,

2008 4:59 AM
To: Adams
Cc: Don Clarkson; Bruce Carr
Subject: Page-turner kit

Ralph,

Thanks for your message and your info re-metrication. Unfortunately we have been metric here since 1965 and it is as difficult for us to obtain imperial fasteners as for you to obtain metric. The machined parts have as are result made with metric threads as they are standard items for us. However I have assembled all fixings and will include in the kit spares where required. Incidentally now that we are in touch with each other and you wish a few fasteners for goodness sake sent us an e-mail and we can pop them into an envelope and forward them on to you.

I have attached a photo of the finished parts that are ready to post to you, the only exception are the quadrant plates where I am awaiting delivery of the material. They are probably worthwhile including as I have the set-up on my rotary table for the circular slot and can machine quickly .The plastic box, although bought from Maplin is Canadian made by Hammond Manufacturing - component No. 2608, and you might be able to source locally. The current weight is 1.6 Kilo and the maximum parcel size is 2 Kilo so we have no problems weight-wise. The postage for a 2kilo parcel is £11.40 surface mail and £23 airmail.

I have included in the kit a roll shaft complete with castration rings at your request.

I went through all the documents last night and I will try wiring it up tonight. Again, the assembly drawings you have made are amazing, I have a couple up on my board at work and people are always asking how they were made.

So if you wake up in the early hours of tomorrow morning, it is because Baldrick and I are toasting you as the page-turner springs to life. Rita gave me a particularly nice bottle of scotch for Christmas, a special bottling of Lagavulin, it tastes like Lagavulin only more so |-) <<P1132989.JPG>>
<<P1132983.JPG>> <<P1132986.JPG>>
<<P1132988.JPG>> .

Cheers,

Ralph.

From: [Adams,](#)
To: [Robert Bowie](#)
Sent: January 14, 2009 10:34
Subject: At last ...real progress.

ll, Baldrick and I were close at 11:00pm last night, but decided that caution was a better strategy than the usual "plug 'er in and see what 'appens". I attach a photo of the wiring, which went smoothly. However, before I subject it to power, I have a couple of questions, one about the location of the traverse stop mounting, and the others about the wiring and power supply for the circuit board.

From: [Adams,](#)
To: [Robert Bowie](#)
Sent: January 13, 2009 6:01
Subject: At last ...real progress.

Robbie:

Over the weekend I finally got to spend some time in the basement. I have the basic turner assembled. The knobs have not arrived, and I have to make the RH Clamp --- slight delay, the brass I had was 2mm not 3mm, and so I ordered some from Vancouver. I am not happy with the two hinges. I ordered them from the best supplier I have, they sell to the fine-woodwork/restoration crowd, but despite the price, they are not what I would call fine quality. I am going to look for some better ones. This also taught me (reminded I suppose, there has been a lot of relearning going on in the basement) that we have issues with small woodscrews here. They all use Robertson heads, apparently they are a Canadian invention, while they work well in the larger sizes, they are useless in the small sizes. They strip even when you are careful and use the correct clearance drill. Anyway, after that little horror show I decided that I would not mount the screen supports with screws. When I was skimming them down to take the 5mm polycarbonate, I took the liberty of drilling and tapping them to take a 10-24 machine screw mounted from the rear.

I have attached some photo's to prove that I not hallucinating that I have been working on it |-). I must admit I have a weakness for Baltic birch plywood, aluminium and brass together.

The post office suggests that we declare the package as a gift or as a sample both descriptions being substantially true as the bulk of the intrinsic value being the manufacture time which is of course free. Anyhow please let me have your further comments at your convenience. I will hopefully get the quadrant material in a day or two and will make the same day as received.

Regards,

Robbie

From: [Adams,](#)
To: [Robert Bowie](#)
C [Bruce Carr](#); [Don Clarkson](#) ;
Sent: August 5, 2008 17:55
Subject: RE: Page-turner info

[Robert,](#)

I spent some time going through the drawings over the long weekend (BC just turned 150 years old) and I have come to the conclusion that you have the best idea on this. The objective is to get a branch running in Kamloops, get additional volunteers in the neighbouring towns (Vernon is down to one), and perhaps get some publicity for TETRA. The quickest way to do that is to get one of your units running as a demonstration. It is silly of me to be worrying about fabricating additional units, substituting locally available items at this point. If we can't get volunteers, it will be moot. As well, as one of my friends who I was discussing this with said " what do you mean there is a problem with metric, you're the loon who make bizzaro nuts and bolts for old English bikes, if anyone can deal with it you can." I am going to take that advice as a compliment.

So, I leave it in your capable hands to come up with the kit. I agree that the quadrant plates would be nice to have. If there is room for the box that would be nice. I can get them here (I once lived near the plant in Ontario |-)) but it would save a trip across town and would be about the same price.

Please let me know the total cost and I will send you a money order (if that is OK, international postal order is other choice), it will take about 5 days to get there. As for the customs declaration, I would suggest putting the value in a short note on REMAP stationery glued to the parcel with "for customs", as well as the "samples" on the declaration. In most cases the postal staff are very generous, but every now and then you get one that goes out of their way to be nasty, and you may find the parcel on your doorstep about two months after you post it (as happened with a parcel containing three screws from Myford, which they thought they would send free of charge after a earlier mix-up). I suggest airmail as it is less likely to be banged around.

I had another talk with the TETRA people in Vancouver, they don't seem to have heard of REMAP. I had assumed that TETRA was somehow an offshoot of REMAP, but it appears to be completely independent. I noticed on your letter that you are chairman of your chapter, in TETRA, the "coordinator" in each town is a health care worker (or someone who has experience in that area), they do the interview with each client to determine what their needs are. How is it done in REMAP, who would send the request for a device to the "fabricators".

From: [Adams,](#)
To: [Robert Bowie](#)
Sent: January 6, 2009 7:39
Subject: Query answers.

Thanks Robbie:

It is all clear now. I should have this together by the end of the weekend.

I was surprised to find that the varnish was still wet when I got home last night. It must be the cold temperatures in the basement. It has been cold enough that I have taken to wearing my fly-fishing gloves while working down there. I don't know if you have them there, they are basically a thin neoprene glove with most of the thumb and first two fingers cut away --- hence the colloquial name of "Italian Driving Gloves" |-).

I spent my time after dinner remembering how to cut and polish the edges of the polycarbonate sheet. a piece of wood, no-load sandpaper that they use in the coachworks and Brasso seem to work.

Cheers,

Ralph.

Ralph.

Thanks for your message and your news/I am sorry about your grandmother but she had had a good innings and it would have been nice for her to have you able to visit her near the end. In answer to your questions I hope this will help:-

(1) Sorry about the misleading dimension, the slot is only there to give flexibility in drilling the holes and is positioned by attaching the L.H. pillar and marking out from the R.H. in situ.

(2) I attach two photos of the hinge assembly which should be self explanatory, Hinge2 and Hinge2.

As a help to assembling the quadrant plates I have attached two photos Quadfix 1 & 2 showing that the blocks are clamped to the wood and a screw inserted so that the board can be rotated and checked that the screw is clear in the 8mm slot, the quadrants themselves being attached so that the pilot hole is in line with the hinge pin.

(3) I have attached a photo R.H.Clamp showing the assembly. The spacer is placed between the clamp and the knob (or wing nut) merely to clear the lifting knob. The screw at the tail end is to maintain the horizontal position when loose. I had to remove the clamp from the parcel to reduce the weight below 2Kl.

(4) I did realise that you would probably not get a 4mm sheet but assumed that you could skim the slots in the lathe.

(5) I use M6 threads of course but 1/4" x 20 would be perfect. Please let me know if there is anything else I can help with and I will reply by return.

Regards,

Robbie

As I get closer to the completion of this project I will have to get some more information from you on how you want to be referenced in the display to go with the page-turner. I have the site you sent, but I would like to ask you to review the text before it is finalised to make sure we are giving all the correct details. I have access to one of those very nice portable display units (the ones that magically unfold from a pile of small aluminium tubes) and I have a friend who is a graphic designer who will help prepare the display (I know she is going to ask for a high resolution REMAP logo). TETRA is going to supply images and write-ups on other projects they have completed.

Finally, I have a stupid engineering question. I was cutting some slots in steel this week on my new Wabeco mill, and it occurred to me that I have never used a commercial end-mill or slot-drill on brass, given that lathe and HS steel fly cutters for brass have no top rake, can you use ordinary milling bits?

Cheers,

Ralph.

From: Robert Bowie

Sent: Wednesday, August 6, 2008 9:49 AM

To: Adams,

Cc: Don Clarkson

Subject: Page-turner kit

Ralph,

Thanks for your prompt reply to my e-mail and for your positive comments. To answer your questions may I say that firstly the payment is of lesser importance than making sure you get the best possible start to your project but when the time comes, pick the way that is least expensive to yourself. I still have not got the material for the quadrant plates but they have promised it will be posted today- hopefully. However if it does not arrive by the weekend I will strip them of one machine in stock to get your kit completed .I cannot start them anyway until Saturday as I have a machine to get ready and deliver to Inverness on Friday as an urgent requirement. I also can include the box as I can put all the electronics and fragile parts inside
You ask about using end mills and slot drills on brass- there is no problem but perhaps a little faster speed for softer materials.

4. There has been yet another polycarbonate "mishap". Apart from the scratch right across the middle (they have to replace it), the thickness are all wrong. It appears we cannot get the same thicknesses as you can. We have a choice of 2.9mm or 4.9mm. I thought 2.9 was too thin, so I went for the thicker one. The only snag is that now the aluminium supports for the screen do not have a large enough spacing as they are designed for 4mm thick polycarbonate. I'm planning on just making some more of the disk and spacers to accommodate the thicker screen.

5. Tonight's job is to finish the varnishing and complete the braces which attach the two parts of the top-plate, and the parts that attach the knob in the sector to the top-plate. I was trying to get some knobs with 1/4-28 threads, but could not, so I have ordered some with 1/4-20 threads.

I will be in touch in the next days to let you know how it is going. At lunch I'm going over to the electronics supplier to see if I can find some nice soft wire to make the harness with.

Cheers,

Ralph.

From: Robert Bowie

Sent: Tuesday, January 6, 2009 4:25 AM

To: Adams,

Cc: Don Clarkson

Subject: Query answers

However this weekend I finally made it back to the workshop. I have completed the wooden parts of the page-turner and have attached a picture to prove it. They need one more coat of varnish and then I can put them together. Of course, there are questions:

1. After much second guessing I changed one of the dimensions. On the drawing of the MK22 top plate, it shows the spacing of the holes to attach the Wixroyd assembly as 350mm plus a 10mm centre to centre slot. After measuring the assembly you sent I changed this to 355mm plus the slot. I hope I did not screw something up. I based my decision on the fact that the holes in the Wixroyd rail are on a 40mm spacing, and that the nominal distance would be 360mm, with 5mm or so clearance on either side. If I have, I can extend the slot.

2. I'm not sure which side of the 16mm rail on the baseboard the hinges are attached to. Are they on the front or rear? I think from the pictures and videos that they are on the front edge. I understand the mounting of the sectors and the need to arrange the assemblies so there is no binding as the top-plate is rotated.

3. Finally, I am not sure how the RH book clamp works. There was not one in the package and I did not realise it was missing until this weekend. However, your drawing is perfectly clear and I will make one up from some 3mm brass plate I happen to have. What I'm confused about is how the clamping action works, I assume the brass spacer goes under the RH hole, and the LH hole (not the knob attachment hole) applies the clamping pressure. Is this correct? Sorry for the long winded explanation, but I left my notebook at home and so cannot send you a scanned copy of the diagram I made.

I will send you tomorrow by post a copy of the REMAP yearbook which will give you a good picture of our organisation. Most panels however are made up of members to suit the local area and individuality. Generally the bulk of members are retired engineers ,many like myself, Don and Bruce being Chartered Engineers. In our panel we have only one O.T. and she only attends meetings if held near her home in Thurso, and really is not involved other than referring clients needing help. The bulk of our referrals come through O.T. or physiotherapist practitioners, very rarely through doctors, and occasionally via specialist nurses. Panels vary in size and area with no logic i.e. Glasgow has only one member but we in a country area with very low population have six on the mainland, two in Orkney and one in Shetland. Bruce in England has 16 members and handles over 100 referrals each year.

Hope this information is of help,

Robbie



From: [Adams,](#)
To: Robert Bowie
C [Bruce Carr](#); [Don Clarkson](#) ;
Sent: August 6, 2008 18:01
Subject: RE: Page-turner

Robert,

Please don't "strip" anything. There is absolutely no rush, and given that I'm away for three weeks in the September, it may be better to wait so the parcel does not sit at the post office too long (they take about a week or two just to clear customs, apparently an unforeseen consequence of the internet, or EBay to be precise). I have been amazed at how generous you and colleagues have already been. I had a feeling that this is what it would be like to have a TETRA chapter running so I'm more determined than ever to get one going.

I already have a copy of the REMAP yearbook, I think it is 2007 and I was given an electronic copy by your "head-office". That was how I found out about the page-turner, looking through the links. I have sent a copy to the TETRA organisers in Vancouver.

I think your comments about how the panel is organised (i.e. it is spread over a number of communities) would be a better model to follow here. After all if Orkney and Shetland can work within a single panel, we should be able to do the same thing say across the Thompson and Okanagan Valleys. Inverness to John O'Groats must be a longer trip than from Kamloops to Kelowna.

From: [Adams,](#)
To: [Robert Bowie](#)
Sent: Saturday, January 5, 2009 19:32
Subject: Xmas Greetings.

Robbie:

Thanks for the Xmas card, I hope you had a good Christmas. We certainly had a wonderful one here, this was the first Xmas we have spent at home for almost a decade, and after the last two which were not very pleasant due to the circumstances, this was wonderful. Rita's dad was convinced to come up here rather than us go to Vancouver. He flew up, and so we did not have to risk mountain passes and crazed skiers coming the other way |-).

We have also had a cold snap, which made Christmas more like a real one. We have had snow on the ground since mid December, and we got down to minus 28C, which is cold for us (well for the last decade).

The other good news is that progress has finally been made on the page-turner. I think I last wrote in November just as I thought my time in Vancouver was finishing; I told you that my 103 year old grandmother was ill and that I was going to visit her. Unfortunately she did not recover. She had had a very mild stroke, but she could not bounce back and passed away at the end of November. I was fortunate to spend quite a bit of time with her in the last weeks as I was in Vancouver. I was executor of the estate, and the only relative that seems to be able to organise anything, I ended up spending a lot of time organising her estate and affairs over December, which meant little progress on the page-turner.

Ralph,

Thanks for your message, it really gets serious when work starts interfering with one's other activities! I had assumed that you had got caught up in the Vancouver end and had not had enough time to work on the project and that you would have contacted me if you had run into any problems.

However I was going to e-mail you this weekend as I had been having a clear out of my study and found the spare screws, springs and rings that I had meant to include with the kit and before sending them on to you wished to check if you had any further requirements to be supplied. In view of your delays I will hold sending them on for a week or so to let you finish the build when you might have some thoughts. Kind regards to Rita and yourself and not forgetting poor Baldrick who will be missing your company!

Robbie

From: Robert Bowie

Sent: Thursday, December 25, 2008 7:00 AM

To: Adams,

Subject: Xmas greetings

Ralph, Rita & Baldrick

Greetings attached,

Robbie

Incidentally, you live in one of the most beautiful places I have even been, up there with the Western Cape of South Africa and the barrens of Northern Canada. I seem to have an affinity for places with few trees and fewer people |-). One of the most memorable evenings of my life was when I taken to a small pub somewhere north of Inverness in March 1986. I was with scientists working on blow-down of pine plantations. There was a cow or horse tied up outside, it was bitterly cold (inside) and there was a pile of damp dogs trying to see how close they could get to the coal fire. Whenever I get my tweed coat wet I think of that evening. The beer was good, the scotch better, and I seem to remember being given a sandwich that had bacon and potato chips in it.

Cheers,

Ralph.

From: [Adams,](#)

To: Robert Bowie

C [Bruce Carr](#); [Don Clarkson](#) ;

Sent: August ,8, 2008 23:51

Subject: RE: Page-turner

Robert:

I have gone through the list you sent. I have attached an edited version. I have colour coded the items. I may be misunderstanding your email, but it seems you are offering to send machined items rather than just the metal stock. If this is correct that would be wonderful, but if not, I have stock on hand and I could machine them up here.

I can source the polycarbonate sheet from a local glazier, and I think the packing and postage would make it prohibitive to include in the kit. I have colour coded some items in red, these are items that I think we must source locally. We are on 120V AC here, and all electrical parts and power supplies have to be approved by the Canadian authorities (CSA) this would mean I could not use your parts. There is one item (a male connector line 26) that may fall into this category. The other snag you are not going to believe .. it is near impossible to obtain any metric fasteners smaller than M6, or components like knobs with metric threads here. This is not an exaggeration, I have been waiting 2 months for an order of M3 machine screws to fix a microscope, and I have given up trying to purchase metric taps, dies or drill bits here and order them from Chronos in the UK. This means that it would be a bad idea to put anything metric on this unit, as it may need to be repaired or modified by someone here who does not have access to metric fasteners. It occurs to me that this may be a problem if some of the other fabricated components are already threaded or tapped. I realise I should have mentioned this metric issue before, but I was assuming I would fabricate everything here and simply substitute UNC/UNF threads. I will go through the drawings over the weekend and make a list of components where this may be an issue and get back to you in a day or two .If you are willing, it would be easier, and cheaper for me, if you could include the Maplin items in the kit. Each parcel coming into Canada is charged either a handling fee by the post office in addition to taxes (\$5), or if coming by courier they charge a brokerage fee on each item. Incidentally, if possible, the best way to send it to me is by surface post (or perhaps airmail depending on size). The brokerage fees added by the couriers can get silly; last winter I replaced my Gloverall duffle coat, it came from England by courier, and after the dust had settled I realised I paid \$175 for the brokerage fees on a courier charge of 50 pounds.

----- Original Message -----

From: [Adams,](#)

To: [Robert Bowie](#)

Sent: November 7, 2009 22:43

Subject: Progress Report.

Robert;

You must think me a complete incompetent not to have this running and out the door by now. I have made progress, but as I'm still spending most of my time in Vancouver I am not getting that much done. I have cut out the plywood after making some jigs to router the radiused corners. I have built the straps; I put the radiused corners on the Lexan screen and polished the edges and.... that's it. I am going to put a few coats of varnish on the plywood when I get home again.

The end is in sight with my stint in Vancouver. So my goal it to send you a video of the thing running by the end of November.

Cheers,

Ralph.

From: Robert Bowie

Sent: Thursday, November 9, 2008 7:00 AM

To: Adams,

Subject:

To: Robert Bowie
C **Bruce Carr**; [Don Clarkson](#) ;
Sent: Tuesday, October, 14, 2008 13:50
Subject: RE: Page-turner

Robert;

I'm in Vancouver, not Kamloops, so progress is slow. Work has gone crazy again, this time some half-baked idea to "measure climate change", my job is to stop them doing something silly, like try to "measure climate change". I am stuck in a hotel for days on end. My grandmother, who is 103, has also not been doing very well, so there is some advantage in being in Vancouver as that is where she lives.

I have made the electronics work just mounted on a piece of board. The plywood arrived last Thursday (Rita picked it up and measured it, is the right stuff), and the polycarbonate is "on its way". More as I get more done.

Cheers,

Ralph.

After thinking about it, would it be possible to have a set of the castration rings, then at least I will be able to tell if the ones we have here have the same surface properties.

There is no rush on this at my end. I am swamped at work right now and I will be away on my annual holiday for the first three weeks of September (my wife and I are going on a driving -camping tour of Manitoba). I had planned on getting the wooden components completed in the next few weeks, but the rest is unlikely to happen before I return from holiday in September.

Thanks again for your generous help.

Ralph.

PS -- there is also some humour in the metric travails; I am probably one of the few people in the world who has a Myford ML7 that has metric top and cross slide screws, but I live in the last part of the world where you cannot buy metric stock, metric drill bits, metric milling cutters etc.

From: Robert Bowie
Sent: Tuesday, August 12, 2008 2:51 AM
To: Adams
Subject: It is a small world

Ralph,

When I was at my chiropodist this morning she said as general conversation that she was off on holiday to Canada on Friday. This prompted me to tell her about our correspondence and when I mentioned Kamloops she said that she and her scientist friend would be staying there, next Wednesday I think. She is a very entertaining and charming lady and I think would be interested in meeting you if it was suitable to both. Perhaps if you are interested you could e-mail me your phone number and I could pass it on to her. Her name is Maureen.

I am going up to Caithness tomorrow for our panel A.G.M and will be handing over the chair to Don Clarkson after 13 years in the job! I will of course still be handling the page-turner project directly.

Kind regards,

Robbie

The reverse is operated either by holding the switch down for 15-20 seconds or by pressing a second time after a 5-10 second delay. In the reverse operation the programme remembers that the first page returned is the one taken over by the traverse and it goes back to retrieve the previous page. You should also note that there is a programmed delay of 4 seconds from pressing the switch to the cycle beginning, this being to allow for "switch bounce".

Regards,
Robbie

From: Robert Bowie
Sent: Friday, October 4, 2008 15:05
To: Adams
Subject: Plywood drawings

Ralph,

As promised this morning I attach drawings for both Mk22 (600mm) and Mk23 (500mm) versions. The Aluminium strap is common to both.

Hope this helps,

Robbie

From: [Adams,](#)

From: Robert Bowie

Sent: Friday, October 04, 2008 09:14 AM

To: Adams,

Subject: Drawing answers

Ralph,

Glad the photo was more satisfactory this time!. Yes Audrey is on my left with Joan my eldest daughter and Isla my granddaughter on the right.

I am sorry if my drawings are confusing but we have had so many versions I get confused myself at times. Mk23, the most recent version had 500mm x 375mm footprint mainly for fitting to standard bed tables and for dismantling into kits, (a bit like your polycarbonate supplier). This machine can as a result only take books up to 180mm wide, and the standard machine has a footprint of 600mm x 400mm with the backplate/top plate combination being 450mm. The polycarbonate sheet extending across the board at 600mm.

I suggest you make the standard version as you can read a wider range of books on it. I shall look out corrected drawings this morning and e-mail them to you.

With regard to plywood thickness we originally used 12mm for all parts but due to the poor quality of ordinary plywood (S.E.Asia manufacture) we changed to 9mm Marine Ply which is more expensive but suitable for the various cut-outs and fasteners. We continued with 12mm standard ply for the base.

From: [Adams,](#)

To: Robert Bowie

C [Bruce Carr](#); [Don Clarkson](#) ;

Sent: August 13, 2008 16:00

Subject: RE: It's a small world

Robert;

Sorry for the delay, I was in Keremeos, 200km south.

Please give my work and home phone numbers to Maureen: my home phone number is 00000000 and my work number is 0000000. It appears that I'm around the middle of next week, but it is fire season here, and I might have to leave at a moments notice.

I suggest you send the parcel in the last week of August, then by the time it clears customs, I should be on my way home from Manitoba. Please let me know what the total was with postage so I can get that off to you.

Cheers,

Ralph.

From: Robert Bowie
Sent: Friday, August 15, 2008 7:11 AM
To: Adams

Cc: Don Clarkson
Subject: Maureen visit

Dear Ralph,

Thanks for your message and your phone numbers, the latter of which I delivered to her house this morning.

I attach the spreadsheet of costs relating to the items awaiting despatch which come to a total of \$C263. After talking it over with Don who has now taken over from me as Chairman, we would suggest rounding this down to \$C200 as a little gesture to keep your starting costs down.

If this is acceptable I suggest reducing the costs further by avoiding bank charges on the transfer by you giving the amount to Maureen when you meet and in case you wish to take up this suggestion have given her a formal receipt to pass over to you. She has indicated her willingness to act as courier all of course subject to your wishes.

Anyway I hope you enjoy your encounter regardless,

Regards,

Robbie

From:

To: Robert Bowie

C **Bruce Carr**; [Don Clarkson](#) ;

Sent: Friday, October,03, 2008 23:53

Subject: RE: I was very disappointed with the picture you sent

Much better |-). Is that Audrey on your left?

I have a question concerning the wooden base. On the drawing with the file name M22backplate.jpg the length is shown as 600mm, as is the polycarbonate plate in screen-.jpg. However, in M23topplate.jpg and M23baseplate.jpg the width is shown as 500mm. Based on the .mpgs I think 500mm is the correct dimension for the backplate and the screen. Thought I would ask before I start drilling holes.

On the wooden parts, now that I have seen the quadrants and thought about the assembly drawings, I have decided that 11mm is too heavy for the backplate (I think the glue adds a lot of weight because there are so many plies). Also, it turns out that is it is actually 12mm thick. The 9mm will arrive next Thursday.

Finally, how doe the reverse work. Do you hold the switch closed for longer?

Regards,

Ralph.

From: [Adams.](#)

To: Robert Bowie

C Bruce Carr; [Don Clarkson](#) ;

Sent: October ,03, 2008 00.36

Subject: RE:I was very disappointed with the picture you sent

... you were not wearing a kilt |-).

I do not seem to have a picture of Baldric and me, but I have attached one of "himself" and Rita on the hill across from our house. In B+W it could pass for the highlands.

<<Rita_and_baldric.jpg>>

I went through the box last night, everything is in good shape.

I am looking forward to digging in this weekend (my plan to take Friday as leave failed).

Cheers,

Ralph

From: Robert Bowie

Sent: Friday, October 03, 2008 8:10 AM

To: Adams

Subject: The saga continues

That better!

From: [Adams.](#)

To: Robert Bowie

C Bruce Carr; [Don Clarkson](#) ;

Sent: August 15, 2008 07:11

Subject: RE: Maureen visit

Thanks, that sounds fine. I will await Maureen's visit.

More later, I'm typing this on a bloody phone |-) and my thumbs are too big.

From: [Adams.](#)

To: Robert Bowie

C Bruce Carr; [Don Clarkson](#) ;

Sent: August,21 2008 16:01

Subject: RE: Maureen and I made the "deal"

Maureen and I made the "deal".

It was all very "cloak and dagger", me waiting at the side of the train at the crack of dawn, for a person I had never met and exchanging a wad of money for an envelope, it should have happened in black and white.

The snag, there always is one, was that the train came in very late on Tuesday, so by the time they had been fed supper and taken to their hotels, it was 10:30. We arranged to meet just before the train left on Wednesday at 7:30am. Unfortunately we did not have time to chat for more than a few minutes.

She seems quite a character, she seemed surprised that I did not think she would be Chinese, she probably gets that a lot, but I was in Sweden years ago and there was a town there called Lingskopping, so I assumed that she must be descended from the Vikings. On the trip to the highlands in 86 I was travelling with a young woman from Sweden, she was constantly going on about the fact that the Scots were using words that sounded just like the Swedish or Norwegian equivalents. It would be fun to go to the Orkneys, there are some carved stones there that I would like to see (Insular art of the dark ages is another one of my hobbies, of which I have far too many).

Cheers

Ralph.

From: Robert Bowie

Sent: Friday, August 22, 2008 7:16 AM

To: Adams

Subject: Customs note

Ralph,

Further to my message of this morning I attach the proposed customs note as per your suggestion. Please confirm if O.K. or suggest modifications.

Still would like to have been a fly on the station platform when you and Maureen had your "Brief encounter" !

Regards,

Robbie

From: Robert Bowie

Sent: Friday, October 04, 2008 09:14 AM

To: Adams

Subject: The saga continues

Ralph,

Delighted that the parcel arrived so soon, may be it was worth sending it off on the 24th - my lucky number as well as my birthday! I now just hope that the parts arrived undamaged. I incidentally rebuilt the machine with the returned parts in 3 hours and it works perfectly so hope you can do the same. I did not include the spare screws and castration rings to save weight but if you can let me know if there are any other fasteners you require I will send them over together.

You ask about my engineering background, well I am a bit of an eccentric being a Chartered Mechanical Engineer on the professional level and also a time-served turner/machinist, an unusual combination, and have done model/disabled work since aged 16 without breaks. Also since moving to the Highlands in 1973 I moved downsize to some 3-4 in my country factory.

I attach a photo of Smudge and myself taken a couple of years ago- both of us have aged a little since then!

Kind regards,

Robbie.



From: [Adams,](#)

To: Robert Bowie

C [Bruce Carr](#); [Don Clarkson](#) ;

Sent: October, 01 2008 17:00

Subject: RE: Page-turner

Robert;

Parcel arrived this morning. I have not seen it yet as Rita found it on the doorstep at 8:00am. I will go through it this evening and be back to you tomorrow. I am planning on taking a day of leave to get started on Friday. Plywood arrived yesterday.

Cheers,

Ralph.

PS, Personal question, but I was looking at your beautiful drawings and the design work, what kind of engineer are you? In my work with professional engineers here it seems they are so specialised that to build something like this you would need at least 4 or 5 of them. I was dealing with the people who are installing a new system of dataloggers for our air pollution network, and it seems that we now have "digital" electrical engineers, who do not know how an simple power supply is built.

Cheers,

Ralph.

From: [Adams,](#)

To: Robert Bowie

C [Bruce Carr](#); [Don Clarkson](#) ;

Sent: August 25, 2008 16.02

Subject: RE: Customs note

The note looks perfect. You may post at your convenience, it should arrive around the time I get back (1 week passage, 2 weeks customs seems normal at the moment).

It was no bother meeting Maureen, I was just disappointed we did not have time to talk for a few minutes. I hope they are enjoying their holiday. The weather has been rather unsettled for this time of year. But that is how it goes in the mountains. I have driven through the Rockies countless times, but I think I have only seen them once in clear skies, and never clear in winter. Sorry for the delay over the weekend. I was scrubbing the house. My wife and I are getting married on Friday (-). I know that sounds strange, but we have been living together for 12 years, so from every legal sense we are married, but it is time to make the symbolic leap. We are getting hitched on Friday in the garden with the dog and our best friends at witnesses, and then having a BBQ for 30 people on Saturday, and then leaving for the road trip to Manitoba on Tuesday morning at 6:00am. We have not told the people that the BBQ is anything other than the annual "end of summer bash" . So ... If you don't hear form me for a while it is because SWMBO, has me off doing errands.

Cheers,

Ralph.

From: Robert Bowie

Sent: Monday, August 25, 2008 9:51 AM

To: Adams,

Cc: Don Clarkson; Bruce Carr

Subject: Despatch info.

Dear Ralph.

Thanks for your message and firstly may I offer my profound congratulations on your impending marriage, it must be all right if your dog is to be one of the witnesses. In this house the dog, "Smudge" rules as the alpha male. He is an old dog, we will have had him 13 years on my birthday at the end of September and as he was a rescued dog we do not know his exact age, probably 14+, but we share a birthday anyway and as I will be 80 then, we are both pretty old bones by now. Incidentally my wife and I are now in our 56th year of marriage and still speaking so there is always hope!

I will now pack your parcel and get it into the post and the following are the contents:-

I dread the plywood arriving |-.). The best I could do was order some 11mm Baltic birch 7 ply (the usual stuff is made for construction and 3/8 is three ply, full of voids and rough on one side). I'll probably get a birch cant 11 metres long.

This is turning into a real adventure |-.).

Regards,

Ralph.

From: Robert Bowie

Sent: Thursday, September 25, 2008 8:08 AM

To: Adams,

Subject: The saga continues

Ralph,

Guess what? The original parcel arrived back today within 24 hours of having sent the replacement. Fortunately in good condition and without any charges.

However it is interesting that on the side of the parcel in felt pen is " 1380 ADAMS" and on the front as the explanation for the return is the word " unclaimed", both of which make your post office explanation somewhat peculiar to say the least. However I will just re-build my machine tomorrow and hope that you will really get it next time .Maybe with luck the fat lady has at least reached the stage!

Regards,Robbie

From: [Adams,](#)
To: Robert Bowie
C [Bruce Carr](#); [Don Clarkson](#) ;
Sent: Friday, September, 26, 2008 00.16
Subject: RE: Saga continues

Robert;

I cornered the postman this morning, he came up with yet another explanation; that there was a relief postie (that is what they call postmen here) who did not see the hold mail instructions. However, his explanation still does not make sense because he should have seen the second card. And even if he did not they are supposed to hold parcels for 14 business days, they did not.

However, just when I thought it was safe (you're going to love this....). I had a phone message that the polycarbonate sheet that I ordered before I left on holiday had arrived at the local windshield shop (that is what we call glaziers here). I went down at lunch to get it. When he brought it to the counter I was a bit surprised at the size of the parcel. In fact it appeared to be just about exactly half the size that I ordered. I commented on this strange development and was told "Shit ... do you didn't want it in one piece did you, we always cut them down for shipping". Again, my fault. I was blithely unaware that when you order a sheet of plastic x inches by y inches you had to state explicitly that you did not want two pieces x/2 by y.

At least they are going to get the right piece.

1-off Complete Traverse Assembly with drive motor and belt attached

1-off Arm

1-off IR detector bracket

1-off Left hand book clamp

1-off Right hand book clamp (this is an older version but quite O.K.)

1-off Roller shaft (this is an older version but quite O.K.)

1-off Roller motor

4-off Screen pillar assemblies

2-off Quadrant plates

1-off ASB plastic box – containing the following:-

1-off PCB fully populated and programmed with standard programme

1-off IR Assembly

2-off Spare springs

4-off Spare rubber rings (these last a very long time)

1-off Packet spare metric fasteners

I shall over the next two weeks make up a package of assembly drawings, wiring diagrams and a hint sheet to help with assembly and test procedures. These will be e-mailed as attachments.

Hoping that you and your good lady have a happy honeymoon and look forward to hearing from you when you are in possession of all the goodies.

Robbie

From: [Adams.](#)
To: Robert Bowie
C [Bruce Carr](#); [Don Clarkson](#) ;
Sent: August, 25, 2008 18:51
Subject: RE: Despatch note

From:
To: Robert Bowie
C [Bruce Carr](#); [Don Clarkson](#) ;
Sent: September, 24, 2008 00:57
Subject: RE: Thank you

Dear Robert:

Large pile of mail arrived this afternoon: including the plug you sent and the book. Thank you, that was very generous and thoughtful. Thanks to you and Audrey from Rita and I (and Balders, he is still talking to us, but seems to have decided to sleep for a week, I fear that sitting in the back seat of a Toyota for two and a half weeks in a constant state of agitation must be very draining for the poor thing.) I hope that your Birthday is enjoyable, I hope that I am as involved and doing useful things at 80 as you are. I was sorry to hear of the death of one of the page turner clients. I don't know if I told you about this already or not (memory like a sieve and I'm only 48 |-) but the reason I got interested in trying to start a TETRA chapter was that last year my mum died 6 months after being diagnosed with cancer (a metastatic melanoma that had appeared in her left eye several years previously but we thought they had caught in time). We tried to look after her as long as possible at home but the last three weeks were in the palliative care ward of the North Vancouver hospital. Having benefited from the help of the volunteers during that time I wanted to do something similar. I tried volunteering at the Kamloops hospice, but I couldn't do it on a permanent basis. I think you have to be far more of a person than I to be good at that. It was after that I found out about REMAP and TETRA and became determined to get a chapter going here.

Regards, Ralph.

The holiday was good, we put 7000km on our new Toyota 4-Runner (which if I remember my distances correctly is like driving from John o Groats (sp?) to lands End and back three times, and will still did not get halfway across the country, which is actually well into Ontario). We camped about half of the time and stayed in hotels the rest. It was cold and wet the first week or so, but then summer returned. We spent more time that we expected in South West Saskatchewan in the short-grass prairie (no trees- no people) but we really seem to like that countryside. They are trying to preserve large areas down there to restore the natural grassland, so there are large areas that are uninhabited even by Canadian standards. When the wind stops (admittedly, not often) it is so quiet you can hear the blood rushing in your inner ear, just like holding a shell up to your ear. And the stars we had no moon the first week and we had one night of perfectly clear weather. The stars were so clear that I could see the Andromeda galaxy without even looking for it, and the starlight was so bright that I could read the star charts without my little red light.

The wedding was a success too, we have a friend who is native indian, and he insisted on bringing enough fresh salmon that he had caught that morning in the Thompson River to feed a small army, he cooked this over a fire and presented it to us as a gift to celebrate our marriage. I think that was the highlight of the evening.

Off to a meeting now.

Regards,

Ralph.



Thank you Robert.

Given our late start (I'm 48, Rita is 53) I doubt we will be able to match your record, but I certainly think I've found the one. Rita is a snow hydrologist (she has a Ph.D, I just have a lowly M.Sc.) and the glue that binds us together is our view of the world and the fact that we are good friends and colleagues as well. We have never had a fight, but we routinely have "violent" arguments about various technical, philosophical and political issues, the most famous in these parts was about whether bar charts are useful or if they obscure the real meaning of data. I side with Tufte and Cleveland on this issue, anyway the great bar chart debate of '96 is now legendary. I don't remember who won though, perhaps a rematch is needed.

As for the dog, I tried to get Baldric to be the ring bearer since we have no children, and most of our friends have kids in their twenties. As you may have guessed, Baldric was named after the character in "Black Adder". This is because he does incredible stupid things, he stinks, and he is obsessed with turnips (I'm not kidding, we got him on Christmas eve, and I found him staring longingly at a bowl of raw turnips, I gave him one and he carried around for days). He is also a rescue, was about a year old when we got him and is now almost 9. And, given that he is a Malamute-wolf-something cross, is just beginning to grow up.

I am looking forward to getting the parcel. For once I will get to do something really useful. This is far more fun that building a steam engine |-).

Cheers,

Ralph.

From: Robert Bowie
Sent: Thursday, August 28, 2008 4:36 AM
To: Adams
Subject: Thanks
Dear Ralph,

Maureen popped in this morning and delivered the "white envelope" and gave her side of the handover- all this is definitely going in my book as one of the better vignettes!

Now it was very kind of you indeed to top up the cash to the spreadsheet total but was very naughty as well as the C\$60 worth was our starting gift to get you going, however many thanks for your kindness.

Incidentally she says that they had beautiful weather for the rest of her trip and enjoyed it immensely including her too brief encounter with your goodself.

Best wishes to Rita and yourself tomorrow, not forgetting Baldrick of course.

Robbie

Robbie

From: [Adams,](#)
To: Robert Bowie
C [Bruce Carr](#); [Don Clarkson](#) ;
Sent: September ,23,,2008 19:49
Subject: RE: Replacement machine

Dear Robert;

I just back from the post office, again! This time I went to the main branch: the results of my request for a refund fell on deaf ears as expected, however this did give me the opportunity to heap scorn on them in front of a large crowd of amused onlookers (I just pretended I was my old maths master in boarding school, he used to introduce himself with "I am Mister Law, and I am"): they do not know, nor have any clue how to find out, if the parcel will be returned by air or surface mail: according to the tracking number, it never was inspected by customs: and it left here on the 15th September. From past experience surface mail is about three weeks to Edinburgh. Phone number will not help, even if it is on the package they will not use it (past experience again).

So, I guess no need to worry about changing the note. Sorry again for all the nonsense. I will make it up to you somehow. I will reimburse you for the additional postage.

I do not know if the other parcels are in the mail as nothing arrived yesterday, I suspect there will be a pile on the step when I go home tonight, unless the illiterate postman has misread the stop holding date |-). I'll let you know this evening.

Dear Ralph,

On second thoughts and talking with my local postmaster I will replace the machine, probably tomorrow as I have one in stock that is very similar. The only differences are that the screen pillars of an older type and the limit switches are also slightly different. I have scrounged a suitable box this morning and will split up the unit this afternoon and hopefully despatch tomorrow. Should I perhaps include your phone number as a contact for the customs as getting two parcels with the same story might, just might, cause a problem if it happens to be the same inspector.

My postmaster thinks your lot are crazy but says this is not the first time he has had a parcel returned although never for such a minor matter. As he cannot remember how long it took to come back, probably by surface mail is why I am proposing sending a replacement. Anyway tomorrow is the 24th which is my lucky number and also my 80th birthday so fingers crossed!

Let me know by tomorrow if you wish any changes to the customs note or address- it will certainly be Mr .Ralph Adams this time!

Cheers,

Ralph

From: [Adams,](#)

To: Robert Bowie

C [Bruce Carr](#); [Don Clarkson](#) ;

Sent: August, 28, 2008 22:14

Subject: RE: Page-turner

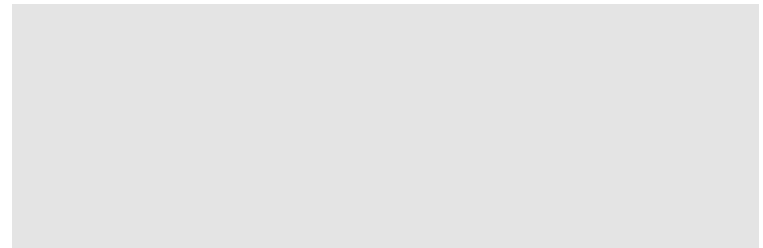
Robert;

I considered your kind offer, but you and your crew have already been so generous with your time that I could not accept. I will be out of contact now until 22nd September, and I will let you know when I get the parcel after that.

Preparations for the "event" are now in the hysteria phase, Baldrick is peeved because he has been banished from the living room and its carpets until after its all over. I have now realised that there is no such thing as a "small informal wedding", but alas it is too late :-).

Cheers and thanks again.

Ralph.



From: [Adams,](#)

To: Robert Bowie

C [Bruce Carr](#); [Don Clarkson](#) ;

Sent: September,23, 2008 03:20

Subject: RE: Good news and bad news

Robert;

First the good news, the note you wrote worked, and the parcel came through customs with no taxes or duties levied; but the bad news is that the parcel is on its way back to you. I was at the post office about 3 hours ago and have been too angry to speak since 6:00pm. I had decided that the safest thing to do was have my mail held for the period that we were away, so I paid my 40\$ and thought all was covered. They held all my mail EXCEPT your parcel. Under the circumstances I was admirably restrained at the post office, but when I asked if they would at least apologise for their error which was going to cause me and others a great deal of work and additional costs, their response was that it was your fault. Yes, its all our fault (I'm starting to imagine John Cleese's voice at this point), because you wrote the wrong name on the parcel and so they decided it was undeliverable. Yes, R.A. Esq. (that's what the postman had written on the delivery form) does not live at 190 West Seymour Street, only a Ralph Adams and a Rita Winkler live there. I apologise again, and I really don't expect you to believe that the post office could be this stupid, but

One of the reasons I'm so upset is that I should have thought of this, this is the same postman who constantly delivers the mail for the next block up to our house. I used to diligently write "delivered to 190 West Seymour street", with an arrow and a circle around the correct address of 190 West Nicola Street and then they would deliver it back to my house again. I now just deliver their mail on the way up to work. Reminds of a joke that was going around a few years ago, it had CBC interviewing the Canada Post Employee who held the record for the most mail sorted in a single hour, when asked the secret to his success at mail sorting, replies "I can't read". We do appear to have an illiterate postman on the loose here.

I am trying to find out how it is going back so we can estimate a time of arrival.

Sorry again, I'll write again when I calm down.

Ralph

From: Robert Bowie

Sent: Tuesday, September 23, 2008 4:30 AM

To: Adams,

Subject: Replacement machine