

The George Daniels Dinner

Now that you have just bought that 2023 diary it's time to enter the details for the 2023 George Daniels Dinner.

Date: Mon 27th March 2023- Time 18:30 for 19:00 ending at 23:00

Place: **Addington Palace Golf Club,**

Gravel Hill,

Croydon,

Surrey, CR0 5BB

Booking forms will be available at the next meeting.

2023 MEMBERSHIP

It's that time of year again please complete the membership form form and return to me or pay at the meeting. Due to the increasing cost of cashing cheques we are happy to accept payment by bank transfer. To keep postage costs down we encourage members with email to take the "email" option.

Due to the ongoing industrial action by postal workers, I will only be posting to those members who have selected post only.

FREE ADVERTISING FOR BRANCH MEMBERS.

Contact Bill 01543506195 or electricwilliam@gmail.com

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South London Branch British Horological Institute

Newsletter No. 526 JANUARY 2023

*Meetings are held on the 1st Thursday of each month
At The White Hart Barn (Godstone Village Hall)
Godstone Surrey RH9 8DU at 7.30 p.m. for 8 p.m.*

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Dinner**

**2023
MEMBERSHIP**

Next Meeting 5th January 2023

Happy New Year to All.

Our next meeting has been affected by the transport strikes, the speaker is not confident of being able to fit in our meeting with other commitments and is postponing until later in the year. Instead we will be showing a dvd, amongst others we have one that is produced by Patek Philippe, a name that always intrigues. I haven't seen it but I'm sure that it will live up to their reputation.

Zoom link obituary!

I have to apologise to members for not sharing the last meeting by Zoom as we originally planned. We were unable to set it up. The format has proved very useful during lockdown, despite the tech problems and the time setting up a functioning link. Our attempts to keep the link going, which is good for distant members and those too unwell or at risk to travel, have been dogged by tech problems and not having someone who is willing and able to take control and run the link. Sadly, for these reasons we have decided to discontinue zoom meetings for the present unless we can provide a good service.

James Marten

Last Month's Meeting
GEORGE DANIELS MEMORIAL LECTURE
DAVID COTTRELL
"CREATING A SLOW TOURBILLION -
WHY IT'S WORTH THE EFFORT".

How fortunate we were that David Cottrell was available to accept the invitation to speak to the South London Branch for this, "The George Daniels Memorial Lecture".

A former BorgWarner precision toolmaker, with no horological experience, David read "Watchmaking" by George Daniels. A 2013 Christmas gift, from his wife. Nine years later he is showing us his first and second watches, explaining how he designed and made an exquisite four-minute tourbillion, with separate drive to the second's hand. The single-minded dedication and perseverance are hard to imagine.

After making his first watch, a minute tourbillion with Daniels Coaxial escapement, David studied the Derek Pratt remontoir/ tourbillion idea and the physics behind the concept. He then designed on CAD a four-minute tourbillion, which having greater energy required less motive force. Shock protection for the carriage support was achieved with David's unique design of a swan neck bracket. The weight of the carriage was 3g and the swan neck bracket was tested to a weight of 15g. For the second watch David decided to machine a Roger Smith one piece type escape wheel from silver steel. He discussed and showed the tool making processes to make constant form relief cutters for the locking teeth. The inner, raised, impulse teeth were profiled using a 0.5mm cutter. To machine some of the complex curved parts was challenging without the assistance of CNC.

When making parts it is often necessary to record a specific temperature to harden and temper the part and then to measure the hardness of the finished piece. These processes require prohibitively expensive instruments which may be used just occasionally. So, David took us through the process of designing and making his own hardness tester. An example of the part that needed to be tested is the coaxial escape wheel, with two sets of machined teeth, it is heat treated in a furnace to 806c-816c. He passed on a tip that salt, conveniently melts at 800c. Another little detail was he likes to make the screws with curved heads where appropriate.

Duncan thanked David for a very technical and inspiring lecture which was followed by many questions from the audience and a presentation of the appropriate lubricant. To give an idea of the quality of the workmanship, you might like to google www.instagram.com/djcotterellwatches.

Was it worth the effort? It sure was!!!

Michael McDonnell

2023 MEETINGS

As from the 5th January meetings will revert to the first Thursday of the month, at the White Hart Barn, with the exception of the 4th May this meeting will be held at Soper Hall (details nearer the date).