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2. Location

Dartmouth Visitor Centre (Tourist Information Centre)
The Engine House
Mayors Avenue
Dartmouth
TQ6 9YY

3. Date and Timing

Saturday, 21 October 2017
2.30pm – 4.00pm
4. Schedule

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<td>14.30</td>
<td>Welcome and Greetings – <strong>Prof David Perrett</strong>, Past President Newcomen Society</td>
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<td>14.35 – 14.40</td>
<td>Background to the Heritage Awards and Speech – <strong>Dr Andrew Ives</strong>, Past President IMechE</td>
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<td>14.40 – 14.45</td>
<td>The Newcomen Society and its place in Dartmouth – <strong>Prof David Perrett</strong>, Past President Newcomen Society</td>
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<td>14.45 – 14.50</td>
<td>The Mayors address - <strong>Mayor of Dartmouth Cllr Richard Cooke</strong></td>
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<td>14.50 – 15.00</td>
<td>The Newcomen Engine: Decision to award EHA – <strong>Dr Andrew Ives</strong></td>
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<td>15.00 – 15.15</td>
<td>Unveiling/ Handing over of the Plaque and photos. <strong>Mayor and Dr Andrew Ives</strong></td>
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<td>15.15 – 15.30</td>
<td>The local IMechE network and ways to get involved - <strong>Helen Timpson</strong>, Chair of Devon/Cornwall Area Panel, IMechE</td>
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<td>15.30</td>
<td>Closing Comments: <strong>Geoff Wallis</strong>, Past President Newcomen Society</td>
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5. IMechE Members attending

The event has been advertised on the Western Region NearYou webpage.

6. Background to the Engineering Heritage Awards

This will be the 110th Engineering Heritage Award to be presented by the Institution of Mechanical Engineers. The awards, established in 1984, aim to promote artefacts, sites or landmarks of significant engineering importance – past and present.

In recent years the Heritage Awards have been overhauled to expand their appeal to members, organisations and media with some notable success. The broader appeal of the awards is allowing a greater variety of applications from members and companies, from the entire Battle of Britain Memorial Flight, E-type Jaguar and the Yavari in Peru.

The Institution’s Heritage Committee was established by Professor Isobel Pollock in 2007, and Past President John Wood is the current Chairman of the Committee.

7. Background to the Newcomen Engine
Newcomen is named after Thomas Newcomen who invented the first practical working steam engine in 1712 and claims to be the oldest surviving full size steam engine in the world. This invention led to the great industrial and technological achievements of the modern age.

Thomas Newcomen (1664-1729) designed and installed the first practical and successful steam engine, used initially for pumping water out of coal mines. Over 2000 Newcomen engines were installed world-wide during the 18th and 19th centuries, over 600 of them before 1775 when James Watt was able to improve their efficiency. The Newcomen engine was a giant step forward in the history of engineering, and led in due course to the Industrial Revolution. The Newcomen Engine House, beside the Tourist Information Centre in Dartmouth, houses an original early Newcomen engine. It can be seen operating during opening hours of the T.I.C., using a hydraulic mechanism added for demonstration purposes. This engine was first installed at the Griff Colliery near Coventry, and later moved to Oakthorpe Colliery, Measham, and to Hawkesbury Junction where it was used by the Coventry Canal Company from 1821-1913. It was finally moved to Dartmouth in 1963 by the Newcomen Society for demonstration in Newcomen's home town. The 22-inch diameter cylinder and wooden arched beam are believed to be original, with valve gear and a separate 'pickle-pot' condenser added about 1820.

8. Background to Newcomen Society

Newcomen has its headquarters at the Science Museum, London, where an annual programme of lectures also takes place. There are also seven other groups around Britain. They all offer regular lectures, visits and associated events.

Newcomen exists to encourage study of the history of engineering and technology from ancient times to the present day. It disseminates historical information by publications, meetings, correspondence and internet forums. It also arranges site visits.

For nearly a century it has been publishing scholarly papers on an extensive and international range of subjects including:

- Civil, mechanical, structural, chemical, aeronautical, electrical and marine engineering
- Inland navigation, railways, roads, bridges
- Water supply, dock & harbour engineering, lighthouses
- Mills and millwork
- Stationary engines, locomotives, turbines, piston engines, steam, oil, petroleum and gas engines
- Metallurgy, manufacturing and industrial plant, textile machinery
- Computer engineering
- Gas and electric lighting, heating and ventilation, sewage and drainage, public health engineering

Newcomen also supports the collection and preservation of archival material and historical artefacts.

9. **Andrew Ives Biography**

Dr Andrew Ives is an expert in electrical and electronic engineering in the automotive sector. After graduating from Brunel University with a First Class Honours in Electrical and Electronic Engineering, he was influential in the early application of electronics to the automobile for engine management systems, safety systems and electric vehicles. He worked for Lucas Industries for thirty years at senior engineering management positions. He was involved in some of the most important technical innovations within the automotive sector during the 1980’s and 1990’s, particularly the introduction of electronic control to car diesel engines which enabled the adoption of clean and quiet diesel engines for the passenger car market.

In addition to his mainstream automotive work, during the 1980’s he worked with the Jaguar racing team to develop the full electronic engine management systems used by Jaguar for their return to endurance racing and the 24hr Le Mans. He oversaw the development of all the engine electronics for Rover’s Metro 6R4, one of the most successful super rally cars of the 1980s.

In the mid-1990s, he began work as an independent specialist consultant in automotive electronics. More recently he has been a special advisor to Brunel University on their automotive research projects. He was awarded an Honorary Doctorate by Brunel University in 2006.

Within the Institution of Mechanical Engineers, he held the posts of Chairman of the Automobile Division, Chairman of the Technical Strategy Board, Chairman of the International Strategy Board, Council Member and Trustee Board Member. He was elected President of the IMechE for the 2005/2006 year.
10. David Perrett Biography - David Perrett B.Sc. Ph.D. FRSC
Professor Emeritus of Bioanalytical Science, Barts & the London School of Medicine, Queen Mary University of London
Still an active biomedical researcher with over 250 publications, his interests relevant to this event can be traced to an upbringing in a coal mining community in Yorkshire. He was President of the Newcomen Society from 2007 to 2009. His interests include stationary steam engines especially the Newcomen Engine and Industrial Archaeology in London, where I am chair of Greater London Industrial Archaeology Society (GLIAS). He lectures frequently both nationally and international not only on the cleaning of proteins from surgical instruments to improve patient safety in hospitals but also on the History of Technology and Industrial Archaeology.

Geoff was President of the Newcomen Society from 2012 to 2014. He is currently President of the Bristol Industrial Archaeology Society (BIAS). In 1969 as an aero-engineering apprentice at Rolls-Royce, Filton he offered to help some senior colleagues restore the Crofton Beam engines – he was hooked on IA. He then joined the newly formed Dorothea Restoration Engineers Ltd, a company that was to play a major role in helping preserve many UK IA sites. He helped get the replica Newcomen Engine at the Black Country museum back into steam. Recently he led the restoration of the Elsecar Newcomen Engine in Yorkshire, the last Newcomen Engine on its original site. For a number of years, he has monitored, on behalf of the Newcomen Society, the care and maintenance of the Dartmouth Engine.

12. Speech Notes for Andrew Ives
Ladies and Gentlemen,

- Good afternoon, I am Andrew Ives, the Past President of the Institution of Mechanical Engineers.

- I would like to welcome you today to the presentation of our 110th Engineering Heritage Award for the Dartmouth Newcomen Engine.
• For those who do not know, the Institution’s Engineering Heritage Scheme is now in its 33rd year.

• The Engineering Heritage Awards celebrate engineering achievements past and present, and it has been hugely encouraging to see an upsurge in popularity of the awards over the last few years.

• Indeed, when the new Heritage Committee was formed back in 2007, our immediate Past President, Prof Isobel Pollock set the challenge of reaching 100 awards by 2014, the 30th anniversary of the Engineering Heritage scheme. The goal was indeed reached with the 100th award being presented on 10 October 2014.

• As the popularity of our awards has grown, so has the diversity of the recipients. Past Heritage Award recipients include great engineering artefacts such as the E-Type Jaguar, SRN1 hovercraft, Lacey Green Windmill and recently two new locomotives: Sir Nigel Gresley’s famous Mallard locomotive and the infamous Advanced Passenger Train from the 1970s.

• But today we are here to recognise the significance of the Dartmouth Newcomen Engine

• Background to the Dartmouth Newcomen Engine – Technical Facts and Summary

• I am therefore, very happy to welcome the Newcomen Engine as our 110th member of the Engineering Heritage Family. I would like to present this plaque with the following citation:

**The Dartmouth Engine**

Invented by the Dartmouth engineer Thomas Newcomen, the Atmospheric Engine was the first practical steam engine. Dating from around 1760 this example is probably the world’s oldest surviving. It worked near Coventry until 1913. Three hundred years after Newcomen’s birth, it was re-erected here in his home town.

21 October 2017