30 June 2010

Engineering heritage award for Sir Harry Ricardo

An Engineering Heritage Award was today bestowed by the Institution of Mechanical Engineers on Sir Harry Ricardo FRS, in recognition of his life and work as one of the foremost engineers of the twentieth century

The award specifically recognizes Harry Ricardo’s first engine, a vertical single cylinder four-stroke stratified charge machine which he designed at the age of 17 and constructed with the help of his cousin Ralph during their school holidays. Harry had been inspired to design the engine by a lecture given by his mentor, Sir Dugald Clerk, in which the theoretical benefits of operation using a stratified charge had been described. The major castings of the engine were machined at the workshops of the Regent Street Polytechnic in London, which the two Ricardo cousins hired for a small fee. Following its completion in 1903, the engine was installed two years later in a small engine house at the well-head of his family’s home in Graffham, West Sussex, where it provided for all of the Ricardo family’s domestic water needs for the next seven to eight years. Today the engine is preserved as one of the displays in the Sir Harry Ricardo Sustainable Transport & Innovation Centre at Ricardo plc’s headquarters in Shoreham-by-Sea, UK, where a commemorative engineering heritage award plaque was unveiled today by the current president of the Institution of Mechanical Engineers (I.Mech.E.), John Wood.

The Engineering Heritage Awards were established by the I.Mech.E. in 1984 to celebrate excellence in mechanical engineering through the recognition of artefacts, locations, collections and landmarks of significant mechanical engineering importance. The award to Sir Harry Ricardo celebrates the start of a highly distinguished career, the legacy of which has made a significant, positive and lasting impact upon the development of the automobile worldwide. Educated at Rugby and subsequently at Trinity College Cambridge, where he studied mechanical engineering, Ricardo’s interest in the internal combustion engine and acumen for innovation and the exploitation of intellectual property was demonstrated when, as a student aged just 21, he filed his first patent.

In 1915 Harry Ricardo formed Engine Patents Ltd, the precursor of the company that operates today as Ricardo plc. He made a significant contribution to the war effort, not least in the development of a new
engine for the Mark V tank which, by its superior performance and low smoke emissions, transformed the tank into an effective battlefield weapon. Ricardo’s work on fuels during the early 1920s included the development of a means of quantifying the performance of different fuels – the forerunner of today’s octane rating scale. His company also pioneered the automotive diesel engine and was responsible for the engine developed in 1935 that powered the Citroën Rosalie, the world’s first commercially available diesel passenger car. Harry Ricardo again contributed to the war effort in World War II, assisting in the design of the combustion chambers and fuel control system of Sir Frank Whittle’s jet engine, and in the development of an oxygen enrichment system for the Merlin engines of the RAF’s Mosquito night fighters, which greatly increased their effectiveness in intercepting incoming bombers.

Harry Ricardo was made President of the I.Mech.E. in 1944, an office also subsequently held by successor Ricardo plc directors, John Pitchford in 1962, Sir Diarmuid Downs in 1978 and Cecil French in 1988. In 1948 he was knighted by King George VI in recognition of his services to the internal combustion engine industry. Together with his company he continued to work on advanced automotive engine concepts, taking an active interest right up until his death in 1974.

Accepting the award on behalf of Ricardo plc, the company’s current chief technology and innovation officer Professor Neville Jackson said:

“It is a personal honour for me as the principal technical officer of Ricardo plc to accept this award on behalf of Sir Harry Ricardo – one of the true pioneers of the internal combustion engine and a leading engineer of his time. It is humbling to see the quality of the design and construction of the first engine he created at such a young age, based on what was then a fundamentally new combustion concept. His life’s work built upon this very promising foundation to provide an extremely wide range of technologies that have dramatically improved the performance and reduced the fuel consumption and emissions of the world’s transportation from cars and trucks to aeroplanes, trains and ships. He was a truly exceptional researcher, engineer and innovator, and an example to future generations of engineers including myself.”

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NOTES TO EDITORS:

Ricardo plc: With technical centres and offices in the UK, USA, Germany, the Czech Republic, France, Italy, Russia, China, Japan, and Korea, Ricardo is a leading independent technology provider and strategic consultant to the world’s transportation sector and clean energy industries. The company’s engineering expertise ranges from vehicle systems integration, controls, electronics and software development, to the latest driveline and transmission systems and gasoline, diesel, hybrid and fuel cell powertrain technologies, as well as wind energy and tidal power systems. Ricardo is committed to excellence and industry leadership in people, technology and knowledge; approximately 70 percent of its employees are highly qualified multi-disciplined professional engineers and technicians. A public company, Ricardo plc posted sales of £178.8 million in financial year 2009 and is a constituent of the FTSE techMark 100 index – a group of innovative technology companies listed on the London Stock Exchange. For more information, visit www.ricardo.com.

The Engineering Heritage Awards: The IMechE first established its Engineering Heritage Scheme in 1984 in recognition of objects/arterfacts/locations of significant mechanical engineering importance. To win an award the object must be industrially innovative; be associated with a person or event, which has made a significant contribution to society and/or mechanical engineering, or possess a unique feature, by being a prototype or only surviving example.

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A selection of high resolution photos to accompany this release is available for download from the media section of www.ricardo.com.