## **Sir Harry Ricardo** BA, LLD, FRS, CEng, FRAeS 1885 - 1974

**S** IR HARRY RICARDO, who died on the 18th May aged 89, was famous as a fuel and combustion research engineer on both petrol and diesel, or compression ignition, engines.

He was educated at Rugby and Trinity College, Cambridge, and even in his school period was fascinated by "mechanical devices" but mainly in prime movers. He worked at Cambridge under Professor Bertram Hopkinson and there started to learn how to "read", by mechanical indicators, what happened inside an engine cylinder during the working cycle.

After the 1914–18 War, when he had already designed a heavy tank engine (of which some thousands were built), he started a long term and intensive investigation of the phenomenon of detonation in piston engines. His basic work on fuel behaviour received world recognition and paralleled that of Kettering, Midgley, Boyd and Graham Edgar in the United States.

Ricardo's development of the variable compression fuel research engine and also the Burt-McCollum single sleeve valve were both classics, and the latter started the late Roy Fedden along the path of applying the sleeve valve to his Bristol aero engines. Ricardo then investigated the compression ignition oil engine, and the work of his



firm in improving CI combustion is world famous and continues. In fact, Ricardo and the firm that bears his name would be unique anywhere as an organisation of research engineers that has been in existence for over 50 years and remained self-supporting on research work.

Harry Ricardo was a great gentleman and always courteous. He gave this country something worthwhile and the work he started will be continued by his very loyal colleagues.

F.R.B.

## Correspondence

## D. L. Hollis Williams

Dear Sir,

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Hollis Williams, whose obituary appeared in the May issue of the Journal, is sure of his place in British aviation history for his work on the Fairey Long Range Monoplane and more particularly for his patent on the structure of its cantilever wing. However it is a relic of a youthful enthusiasm which remains as a more permanent memorial to his practical interest in the art of the aviator.

While still at Hawkers (1924) he bought surplus Sopwith Pup and Dove assemblies and with the aid of a £5 Clerget rotary bought from Coley (a famous name in those days) set about building himself a two-seater. After three years hard work, in the course of which he gained a lot of practical experience, the two-seat Dove had been completed and was taken to the Easter (1972) Meeting at Bournemouth where it was crashed (two up) on take off. By this time Hollis was at Faireys and the great Dick Fairey himself. rebuilt in the company's shops. Today that rebuilt machine is the Sopwith Pup in the Shuttleworth Collection. The story is told in the third volume of Harald Penrose's definitive story of British Aviation. Later on while with General Aircraft Ltd, Hollis became well known for his flying of the G. A. Cyanet a single-

well known for his flying of the G. A. Cygnet, a singleengined low-wing all-metal monoplane to which a tricycle undercarriage had been fitted. Intended for the private owner, it was the delight of Hollis to demonstrate how heavily and steeply this machine could be flown on to the ground.

wishful to encourage a bright young man, had the machine

In 1944 he led a team from Faireys to the United States. As a result of their observation of what went on in 14 American aircraft factories they conceived the integrated production/design planning which led to the success of Fairey envelope jigging.

## **Thurstan James**