

Technology Transfer, Licensed Production and Deployment: The Use of German Aviation Technology by the Japanese Army and Navy from 1935–1945

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The purpose of this article is to elucidate the process of technology transfer and licensed production of German air weapons, particularly aircraft engines, by the Japanese army and navy from 1935–1945. While the Japanese had adopted a policy for the indigenisation of military aircraft design and development in 1931, they were still dependent on Germany for aero-technology in the late 1930s. Although the Germans lagged behind both Britain and the United States in the design and production of powerful aircraft engines, the Japanese army and navy, which tended to overestimate the quality of German military technology, bought the license for the Daimler-Benz DB 601 liquid cooled aero-engine in 1939. In Japan, some 5,000 DB 601 engines were produced by Aichi Co. and Kawasaki Co. under the license during the Pacific War. However, these engines had many mechanical defects due to the relatively poor technical standards and low level of quality control in the wartime Japanese aircraft industry. As a result, engine trouble was one of the causes of substantial non-combat aircraft losses in deployment and the low serviceability rate of Japanese air power from 1943–1945.