



## Alvis Vehicles Limited History

Alvis Limited was formed in Coventry by Mr T G John in 1919 to manufacture motor cars. It is not known for certain what gave rise to the name, but the accepted explanation is that it is derived from "Al" for aluminium and "Vis", the Latin word for strength. Alvis quickly became noted as a producer of innovative and high quality cars and went on to become one of the prestige names in the British automobile industry. The company moved into aero engine manufacture in the 1930's and was a major producer during World War II, supplying the Merlin engines for the Lancaster bomber, for example. Alvis started manufacturing armoured vehicles before World War II and afterwards became one of the leading names in the world, supplying light armoured fighting vehicles.



Starting with the Saladin and Saracen high mobility wheeled vehicles, and following this with the Scorpion, and later Stormer, tracked vehicles, Alvis has supplied a high proportion of the British Army's light armour and has exported to more than 60 countries. Both aero engine and car manufacture ceased in the 1960's, although there are still some 2000 Alvis cars running in the UK today and the marque is enthusiastically supported.



Alvis Limited was bought by United Scientific Holdings Plc from the then, British Leyland in 1981. United Scientific had been built up rapidly by organic growth and acquisition in the 1960's and 1970's, as first a trader in, and then a leading developer and manufacturer of, military sighting equipment. Following the disposal of some of the optical companies in the early 1990's, it was decided to adopt the Alvis name for the Group in order to reflect the increasing concentration of the business on military and vehicle engineering. Accordingly, in 1992 United Scientific Holdings was renamed Alvis Plc. In 1993 a substantial restructuring of the Group took place when the optical companies owned by Alvis were transferred to, the then 51% owned subsidiary of, Alvis in Singapore, Avimo, which had previously been floated on the Singapore Stock Exchange. Alvis subsequently sold its stockholding in Avimo.

Since the 1993 restructuring, Alvis has continued to enhance its focus on military vehicles. In a significant corporate development in 1997 the Group acquired Hägglunds Vehicle AB, the major Scandinavian manufacturer of light and medium armoured vehicles. Equally significantly, in 1998 the Group took over the armoured vehicle business of GKN Plc, in a transaction which saw GKN take a shareholding in the enlarged Group and the main UK manufacturing operation move from Coventry to Telford. Through these developments Alvis has confirmed its position as Europe's leading manufacturer of light and medium armoured vehicles, and enhanced its strong strategic position in a rapidly consolidating sector.

## Vickers Defence Systems History

The Defence Systems business of Vickers PLC traces its history back to 1847, when W G Armstrong, later Lord Armstrong, established an engineering works on Tyneside to manufacture his newly-invented hydraulic machinery. A few years later he was asked by the British Government to take up the task of improving the Army's artillery weapons, since these had not changed significantly in design since the Middle Ages. By 1859 he had perfected the world's first successful breech-loading system of field artillery that fired elongated, fused projectiles through a polygroove rifled steel barrel.

From this time, Armstrong's company began a long period of expansion into one of the world's greatest engineering, shipbuilding and armaments empires. Within a few decades his factories in Britain were turning out guns of all types, from .303-inch calibre rifles to 110-ton



naval guns, the latter complete with mountings and hydraulic control systems. His business also became famous for its research and development work in ballistics and propellants.

By the 1890s, naval ships were added to Armstrong's range of products. He could then supply ships ready for action, where every component had been made in his own factories. In 1897, Armstrongs merged with the business of another great Victorian engineer, Sir Joseph Whitworth, and the company was renamed Sir W G Armstrong Whitworth & Co Ltd.

During this same period, the Vickers company of Sheffield was developing along similar lines and into similar product areas. The starting point for Vickers had been high quality steel castings.

At the beginning of the Twentieth Century, both companies offered an extraordinarily wide range of military equipment. Both were equally receptive to the commercial potential of the new products and ideas. In automobiles, for instance, Vickers acquired the Wolseley Tool and Motor Car Company in 1901, while Armstrong-Whitworth established its own car and truck business in 1902. Vickers also built the first British submarine and the first British airship. Both businesses also manufactured a wide variety of military aircraft and it was a Vickers Vimy that completed the first non-stop Atlantic crossing, in 1921.

In 1927, Vickers and Armstrong-Whitworth merged their defence businesses into a new subsidiary called Vickers-Armstrongs.

Vickers-Armstrongs was deeply involved in the re-armament programme prior to World War 2. Notable achievements by the company during this period include the King George V class 14-inch battleships and the Spitfire and Wellington aircraft.

Wartime naval production by Vickers-Armstrongs comprised 225 naval ships, including 8 aircraft carriers, 1 battleship, 1 monitor ship, 36 destroyers, 123 submarines and 51 assault craft. For the Royal Air Force, the company produced 21,676 Spitfire and Seafire fighters and 11,461 Wellington Bombers.

On land, the pre-rearmament British Army was largely a Vickers-armed army. Its automatic infantry weapons were the Vickers and Lewis machine guns. The main tank of the army was the Vickers Medium. The new tanks of the re-armament period were the Vickers Light Tanks, the Vickers A9 and A10 Cruiser tanks and the Vickers Valentine Infantry Tank.

From the outbreak of war in 1939, Vickers-Armstrongs produced approximately 20,000 machine and gas-operated guns and two-thirds of the national output of field artillery. By 1940, the company was producing a range of seven tracked armoured vehicles: Light Tank Mark VI, Light Tank Mark VII, Cruiser Mark I (A9), Cruiser Mark 2 (A10), Infantry Tank Mark I (Matilda I) and Infantry Tank Mark III (Valentine).

After World War 2, Vickers and Vickers-Armstrongs consisted of four main areas of manufacture: Aircraft, Steel, Shipbuilding and general Engineering. Post war achievements include the first British nuclear submarine, the first British V-bomber and the Viscount and VC10 airliners. The company's aircraft, shipbuilding and steel businesses were subsequently nationalised.

In 1986 Vickers Defence Systems acquires Royal Ordnance fighting vehicle factory at Leeds. The Leeds factory is built during World War II to manufacture light and medium guns, supplying almost 9,000 to the British Army. After the war, the factory switches to fighting-vehicle production, and main battle tanks including Centurion, Chieftain and Challenger 1 are built at Leeds and at the Vickers factory in Newcastle.

The UK MoD order for the first driver training tanks, in 1990, to be purpose-built for the British Army is completed, providing realistic yet cost-effective driver and maintenance training. Straight from the factory, Challenger Armoured Repair and Recovery Vehicles (CRARRV) join British Army Challenger 1 MBTs in the desert for the Gulf War. Backed up in theatre by



Vickers teams, they record a magnificent 100 per cent availability, and the MBTs destroy more than 300 enemy tanks, armoured personnel carriers and artillery pieces without loss.

Challenger 2, the world's most formidable main battle tank, wins the British Army contract, in 1991, for the next-generation MBT against strong American, French and German competitors. In 1993 The Royal Army of Oman chooses Challenger 2 for its MBT requirement.

Wolverhampton-based Vickers acquires the Wolseley Tool and Thompson Defence Projects from Rolls-Royce Engineering Plc in 1995. The new business, Vickers Bridging, is prime contractor for BR90, the comprehensive bridging system covering close support, tank-launched and general support mechanised bridges, capable of spanning gaps from nine to 60 metres.

In 1998, Specialist Engines Division, a Vickers company based at Crewe and formerly part of Rolls-Royce Motor Cars, joins Vickers Defence Systems. Challenger 2 is officially handed over and accepted into service by the British Army.

Vickers acquires Reumech OMC in 1999, the South African armoured vehicle manufacturer, creating Vickers OMC and enabling entry into the expanding market for next-generation, high-mobility wheeled armoured vehicles. The Newcastle factory becomes the single centre of excellence for heavy armoured vehicle manufacture and design. Tank manufacture ceases at Leeds, which becomes a new specialist service centre dedicated to vehicle upgrade, maintenance and test. Rolls-Royce, one of the most famous names in engineering throughout the world, acquires Vickers.

## **Alvis Vickers Limited History**

On 30 September 2002 Alvis completed its acquisition of the business interests of Vickers Defence, comprising Vickers Defence Systems and Vickers Bridging, both based in the UK, and a 75% stake in Vickers OMC, based in South Africa.

The UK operations of Vickers Defence Systems have been merged with those of Alvis's existing UK armoured vehicle company, Alvis Vehicles Limited, in a combined UK business called Alvis Vickers Limited. This is one company with facilities in Telford, Newcastle and Leeds.

Alvis Bridging Limited (formerly Vickers Bridging) and Alvis South Africa (Pty) Limited (formerly Vickers OMC (Pty) Limited) will continue as self-standing businesses. It is also business as usual for other subsidiaries in the Alvis Group: Alvis Hägglunds AB in Sweden and Alvis Moelv AS in Norway.

We are confident that combining the complementary technical expertise of Vickers Defence Systems with Alvis Vehicles' background in light and medium armoured vehicles will enable the combined company to offer a comprehensive capability to its worldwide customer base.