# **Alvis Saladin**

The **FV601 Saladin** is a six-wheeled <u>armoured car</u> developed by <u>Crossley Motors</u><sup>[1]</sup> and later manufactured by <u>Alvis</u>. Designed in 1954, it replaced the <u>AEC Armoured Car</u> in service with the <u>British Army</u> from 1958 onward. The vehicle weighed 11 tonnes, offered a top speed of 72 km/h, and had a crew of three.<sup>[1]</sup> Saladins were noted for their excellent performance in desert conditions, and found favour with a number of <u>Middle Eastern</u> armies accordingly.<sup>[3]</sup> They were armed with a 76 mm low-pressure rifled (spin-stabilised) gun which fired the same ammunition as that mounted on the FV101 Scorpion.<sup>[2]</sup>

The Saladin also spawned an armoured personnel carrier counterpart, the Alvis Saracen. [2]

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# History

# **Development**

Following the end of the <u>Second World War</u>, the British Army issued a requirement for a new, 6×6 wheeled armoured vehicle to replace the obsolete <u>AEC Armoured Car</u>.<sup>[4]</sup> Design work began in 1947 and a contract was awarded to <u>Alvis Cars</u> to build two

## **Alvis Saladin**



Alvis Saladin at the Royal Air Force Museum
Cosford

Туре	Armoured car	
Place of origin	United Kingdom	
Service history		
Wars	Six-Day War	
	Vietnam War	
	Aden Emergency	
	Biafran War	
	Dhofar Rebellion	
	Lebanese Civil War	
	Sri Lankan Civil War	
	Second Sudanese Civil War	

## **Production history**

Designer	Crossley Motors	
Designed	1954 <sup>[1]</sup>	
Manufacturer	Alvis	
Produced	1958–1972 <sup>[2]</sup>	
<u>No.</u> built	1,177	
Specifications		
Mass	11.6 t	
Length	4.93 m	
Width	2.54 m	
Height	2.39 m	
Crew	3	

prototypes for trials. The new armoured car was designated FV601A and armed with an Ordnance QF 2-pounder gun. [4] Alvis also proposed a much heavier fire support variant designated FV601B armed with a new 76 mm low-pressure gun. [4] Design work on the FV601B was subcontracted to Crossley Motors, which engineered and manufactured six pre-production models. [4] After further modifications by Alvis, the FV601C entered mass production in 1958 as the *Alvis Saladin*. Production of the FV601C and its variants continued at the Alvis factory at Coventry until 1972. [4]

A special variant known as the FV601D was developed for law enforcement agencies and internal security purposes; this model lacked a co-axial machine gun and had different lights and smoke dischargers.<sup>[4]</sup> The FV601D was only adopted by the German

Armour	up to 32 mm
Main armament	76 mm L5A1 gun
Secondary armament	2 × M1919A4 machine guns
Engine	Rolls-Royce B80 Mk.6A, 8 cyl petrol 170 hp (127 kW)
Power/weight	15.5 hp/tonne
Suspension	6x6 wheel
Operational range	400 km
Speed	72 km/h

Federal <u>Bundesgrenzschutz</u>, which designated it *Geschützter Sonderwagen III.*<sup>[5]</sup> A Saladin was also offered with the same 30 mm <u>RARDEN</u> autocannon as found on the <u>FV510 Warrior</u> and <u>FV721 Fox</u>, but this model did not find favour with the British military or any export customers.<sup>[4]</sup>

The <u>Federal Republic of Germany</u> was the first country to express an interest in the Saladin, specifically the FV601D.<sup>[6]</sup> When production began, export customers such as <u>Australia</u>, <u>Indonesia</u>, and <u>Ghana</u> also placed large orders for the vehicle.<sup>[6]</sup> By the late 1960s, the British Army was beginning to dispose of second-hand Saladins as military aid for various <u>Commonwealth</u> member states.<sup>[6]</sup> The Saladin performed well on the export market but was not as successful as its primary competitor, the French Panhard <u>AML</u>-90, which was much more heavily armed, and cheaper.<sup>[3]</sup>

The Saladin shared many common components with the <u>Saracen</u> armoured personnel carrier, <u>Stalwart</u> high mobility load carrier and Salamander fire tender.

## **Service**

### **British Army**

The Saladin was used by B Sqn  $\underline{16/5 \text{ Lancers}}$  during their defence of  $\underline{\text{Nicosia airport}}$  in 1974 and subsequent armed recce operations under the banner of the UN.

#### **Australia**

The <u>Australian Army</u> mounted Saladin turrets on <u>M113A1 APCs</u> to produce the Fire Support Vehicle. A new FSV based on the British <u>FV101 Scorpion</u> <u>Light Tank</u> turret was accepted for service in 1976, the first RAAC AFV fitted with a passive (image intensifying) night sight; this was redesignated the Medium Reconnaissance Vehicle (MRV). [7] <u>Royal Australian Armoured Corps</u>(RAAC) personnel referred to the resulting vehicles as "Beasts".

## Oman

The Saladin was widely used by the <u>Sultan of Oman</u>'s armed forces throughout the <u>Omani Civil War</u>, and saw extensive action during the period 1972 to 1976, supporting ground forces and on convoy patrol. Often crewed by British servicemen (loan soldiers) and Omani servicemen, the <u>Sultan's Armoured Car Squadron</u> consisted of an estimated 36 Saladins. They saw extensive action supporting troops from the British SAS, <u>Oman Firqa</u>, Oman regulars, and Iranian forces in their war with the <u>Adoo</u>. The squadron's vehicles were regularly attacked by Katyusha rockets, anti-tank mines, rocket propelled grenades, and light and heavy

machine gun fire. Many vehicles were mined and repaired, and after the end of the war in 1976 the Saladin remained in service until the early 1980s. An unpublished account called *The Tinned Equivalent* was written in 1977, and details many of the events of that war.

#### Sri Lanka

The <u>Ceylon Army</u> received several ex-British Army Saladins following the outbreak of the <u>1971 JVP</u> insurrection and were deployed counter-insurgency operations. These were used extensively by the <u>Sri Lanka Armoured Corps</u> in the 1980's in the early stages of the <u>Sri Lankan Civil War</u>, with its 76 mm gun being effective in countering insurgents. However, the wheeled vehicles had limited cross country capabilities and suffered damage from <u>IEDs</u> and <u>RPGs</u> in urbane areas. In one case, in July 1987 during an insurgent attack on an army encampment in Jaffna, a Saladin was knocked out when an RPG entered through the drivers viewing portal, killing the driver and a sergeant inside.<sup>[8]</sup> Saladin's remained in reserve status till the end of the war in 2009. It forms the tank crew pin of the Sri Lanka Armoured Corps.

#### **Kuwait**

During the 1990 invasion of Kuwait, Saladins were filmed on the streets of Kuwait City defending Kuwait against Iraqi forces.

## Indonesia

The Indonesian Army (TNI AD) uses the Saladin for "KOSTRAD Cavalry Battalion", "KOSTRAD Recon Company" and Armoured Car Company. In 2014, the <u>Indonesian Army</u> confirmed that it was continuing to deploy the Saladin in active operations. In Indonesian Vice President <u>Jusuf Kalla</u> charged state-owned arms manufacturer <u>Pindad</u> with developing a modernization package for the Saladin in early 2016, indicating the armoured car would continue to remain in service for some time. In Indonesian Army Saladins had been modernized by Pindad.

#### Sudan

The Sudanese Army deployed Saladins during the Second Sudanese Civil War, some being captured by the SPLA. [12]

## **West Germany**

Nearly 100 Saladins were exported to the Federal Republic of Germany as part of a British assistance programme for the fledgling *Bundesgrenzschutz* in the mid to late 1950s.<sup>[6]</sup> In German service they were designated *Geschützer Sonderwagen III* and utilised for border patrols.<sup>[5]</sup> All but 25, along with the entire German inventory of spare parts,<sup>[13]</sup> were later resold to Honduras as part of a \$7 million deal negotiated through Honduran defence contractor Gerard Latchinian.<sup>[14]</sup> Honduran Saladins could be seen in the streets of Tegucigalpa in the 2009 coup against President Manuel Zelaya.<sup>[13]</sup>

# **Surviving vehicles**

There is a Saladin on display as a gate guard at Episkopi Garrison, British Sovereign Base, Cyprus. It is dedicated to the memory of L/Cpl Nicholas Stokes, who died in a training accident in October 1992.<sup>[15]</sup>

A decommissioned Lebanese Army Saladin is currently part of the "Hope for Peace" monument in Yarze, Lebanon.

There is an FV 601 Saladin in Yad la-Shiryon museum, Latrun.

There is an Alvis Saladin at Sri Lanka Armoured Corps Training Centre, Anuradhapura – a gate guard.

Several Saladins are parked at a tank garage at The Indonesian Army 4th Cavalry Battalion.

There are three surviving Saladins in <u>The Tank Museum</u>, Dorset, England. One, in all over green, is displayed in the tank story exhibition. The second, in all over tan, is in operational condition and used in events. The third, in a tan and green camouflage pattern, is part of the museum's reserve collection and is stored in the vehicle conservation centre.

There is a Saladin in the <u>Muckleburgh Collection</u>, Norfolk, England. It can be seen running at various time during the year.

There is a Saladin on display at the Kent and Sharpshooters Yeomanry Museum at Hever Castle in Kent.

There is a Saladin at the Dunmore Park base of the B Squadron "North Irish Horse" SNIY Scottish and North Irish Yeomanry, an Army Reserve regiment.

There is a Saladin at the Aldershot Army Museum<sup>[16]</sup>

There is also a non-functioning Alvis Saladin displayed outside the Lebanese Army's military outpost in the mountain region of <u>Baabda</u> located between Hammana and Chbaniyeh.

An American college sports enthusiasts club in Knoxville, Tennessee, the "Big Orange Army" operates a Saladin painted orange as an advertising device.

There is another privately owned and fully operational restored 1959 Saladin AFV in Knoxville Tennessee. It has a live L5A1 76 mm main gun and a coaxial 1919A4 BMG with a Browning M2 Machine Gun top mounted on authentic US Mark 93 mounting hardware and gun shield plate.

There is a privately owned Saladin in the Hurst-Euless-Bedford area of Texas.

There is a Saladin as gate guardian at King Phraya Damrong Rajanupam Camp of the Royal Thai Border Police in Ubon Ratchathani, Thailand.



Alvis Saladin spotted at O'Sheas Pub & Grill, Hurst, Texas, 7 April 2013



Alvis Saladin in Tankfest 2012.



FV 601 Saladin in Yad La-Shiryon Museum, Latrun.

There is a privately owned Saladin in the Vancouver, British Columbia area of Canada.

There is a Saladin at the Inniskillings Museum in Enniskillen, County Fermanagh, Northern Ireland.

Numerous Saladin survive in Australia, one example is on display at the <u>RAAC</u> Memorial and Tank Museum Puckapunyal, Victoria. <sup>[17]</sup> and another complete operational, privately owned ex-British Saladin exists in the outer metropolitan region of <u>Sydney</u>. Many ex-<u>Australian Army</u> Saladins remain turretless because of the fitting of Saladin turrets on <u>M113</u> carriers to make the Fire Support Vehicle (M113-A1 FSV) used in the Vietnam war. Two Saladins are on display at the <u>Australian Armour and</u> Artillery Museum located in Cairns, Queensland. One as the Gate Guard and the second (on display) is in running condition.

# **Operators**

■ Bahrain: 8<sup>[6]</sup>

- Ghana: 15<sup>[6]</sup>
- Honduras: 72 ex-German examples; purchased in 1984;<sup>[14]</sup> 40 operational.<sup>[11]</sup>
- Indonesia: 69<sup>[6]</sup>
- Jordan: 130<sup>[6]</sup>
- Kenya: 10<sup>[6]</sup>
- Kuwait: 60<sup>[6]</sup>
- Lebanon: 40; possibly donated by Jordan. [6]
- Mauritania: 40;<sup>[6]</sup> 10 operational.<sup>[11]</sup>
- Nigeria: 16<sup>[6]</sup>
- Oman: 10<sup>[6]</sup>
- Qatar: 30<sup>[18]</sup>
- Sudan: 9<sup>[6][19]</sup>
- Tunisia: 20<sup>[6]</sup>
- Uganda: 36<sup>[20]</sup>
- United Arab Emirates: 70;<sup>[6]</sup> 20 operational.<sup>[11]</sup>
- Yemen: 15<sup>[6]</sup>

## Former operators

- Australia<sup>[21][6]</sup>
- Biafra<sup>[22]</sup>
- Federal Republic of Germany: 97; used by the *Bundesgrenzschutz*.<sup>[6]</sup>
- Iraq: Captured Kuwaiti Vehicles, all scrapped or destroyed.
- Libya: 40<sup>[6]</sup>
- Portugal: 39<sup>[6][24][25]</sup>
- Sierra Leone: 4<sup>[6]</sup>
- III Sri Lanka: 18<sup>[6]</sup>
- United Kingdom: all retired and replaced by the FV101 Scorpion<sup>[2]</sup>

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# **External links**

- Saladin (http://www.globalsecurity.org/military/world/europe/saladin.htm) at Globalsecurity.org
- Saladin (http://www.warwheels.net/Saladin2INDEX.html) at Warwheels.net

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