



The Daimler Armoured Car

The Daimler Armoured Car was a development of the Daimler Scout car, design began in 1939, and resulted in what was basically an enlarged Dingo fitted with a turret, even the hexagonal fighting compartment and hull front bin were found on both. Other items shared with its older little brother were rear engine (but a bigger 6 cylinder, 95bhp, 4095cc one) and transmission via separate driving shafts and universal joints to each of four wheels. Each wheel station was independently sprung, with four large coil springs mounted as two units of pairs one inside the other. This gave a large wheel travel and good cross country performance. The pre-selector gearbox was another Dingo feature, the armoured car having five speeds available for forward or reverse travel using a transfer box via a fluid flywheel.

The original vehicle was to have been called the BSA Light Wheeled Tank, and have two machine guns as per the Guy Wheeled Tank and also four-wheel steering as on the Dingo. This steering arrangement was never fitted in production, indeed only the earliest Dingo's had it, and armament was a 2pdr gun even on the prototypes. This gave the car firepower similar to current British tanks and better than the machine guns of earlier armoured cars.



Image courtesy of the authors own collection

DESCRIPTION: A rare photo of the Daimler Armoured car prototype.

The photo of the prototype shows that it had no side doors and small detail differences from the production cars. Turret vision slots were different, smoke dischargers were fitted one each side of the turret, and there was a raised section above the driver's position as well as headlight differences. Production vehicles had escape hatches in each hull side. The three man crew was the largest which could be fitted in, and without a major redesign a more powerful gun could not be fitted.



(Photos courtesy of Bovington Tank Museum, numbers not known)
DESCRIPTION: A front view of the Daimler Armoured car prototype.

One feature which was useful for reconnaissance work was the rear driving position, with a steering wheel and throttle on the left rear of the fighting compartment and a small peep slot in the hull rear. Turret hatch opened in a manner similar to early Crusader tanks, a series of rods and torsion bars allowed the hatch to open with a cantilever action. This meant the hatch was either fully open or fully closed.

First vehicles were issued in the UK in 1941 and small numbers of cars went to North Africa from mid 1941 for evaluation. It was not until 1942 that the 11th Hussars became the first active service users. Initially Daimlers served alongside other cars, mostly Humbers, and armoured car units also used Dingo's. Looking at the 1944 establishment, it was possible to see Daimler armoured and scout cars working with Staghounds as command and anti aircraft vehicles, supported by AEC Matador Mk III cars or 75mm guns on half-tracks - surely this gave unit mechanics and logisticians busy days and sleepless nights! Later on, the Daimler became the standard car in British armoured car regiments and the Reconnaissance Corps units attached to infantry divisions in place of Humbers, although Staghounds were used as command vehicles.

As was common, detail improvements were introduced as production progressed. Most noticeably, the external stowage changed, a spare wheel was fitted on the left hull side (unfortunately blocking one of the side escape hatches) and later a rack to carry two sand channels on the right side. I have never seen these used for their original purpose in photos, and indeed cars in North Africa and Sicily often carried a rack for petrol or water cans on the hull side with the sand channels being carried on the front of the hull, while a sun compass bracket could be fitted on the right side of the turret. An external condenser can was carried in hot climates.



It was planned to replace both Daimler and Humber armoured cars with the Coventry, designed and built jointly by both manufacturers. In the event, more Daimlers were built. Mk II car had a more rounded gun mantlet, the older 'Mounting, 2pdr and Medium BESA MG No 4 Mk II' with its square-ended mantlet being replaced by the 'No 10 Mk I'.

There was now an escape hatch above the driver, the left hand side door was eliminated, while improved engine cooling meant armoured louvers over the whole hull rear plate and only two covered slots in the horizontal engine cover instead of four (oddly, the prototype seemed to have had this later arrangement) as well as a number of mechanical improvements.

Post war, both marks remained in service, many photos even show both in use in the same unit at the same time. The only changes made were the replacement of the 4" smoke bomb throwers with sets of six barrelled dischargers as used on many British AFVs of the period.

The Daimler Armoured Car. Like the scout car, it incorporated some of the most advanced design concepts of the time and is considered one of the best British AFVs of the Second World War. The prototypes had been produced in 1939, but problems with the transmission caused by the weight of the vehicle delayed service entry until mid-1941. 2,694 armoured cars were built by Daimler.

The Daimler had full independent suspension and four wheel drive. Epicyclic gearing in the wheel hubs enabled a very low ratio in bottom gear - it was credited with managing 1:2 inclines. It also used Girling hydraulic disc brakes and another steering wheel and controls were available to the commander to drive to the rear.

The rugged nature combined with reliability made it ideal for reconnaissance and escort work.



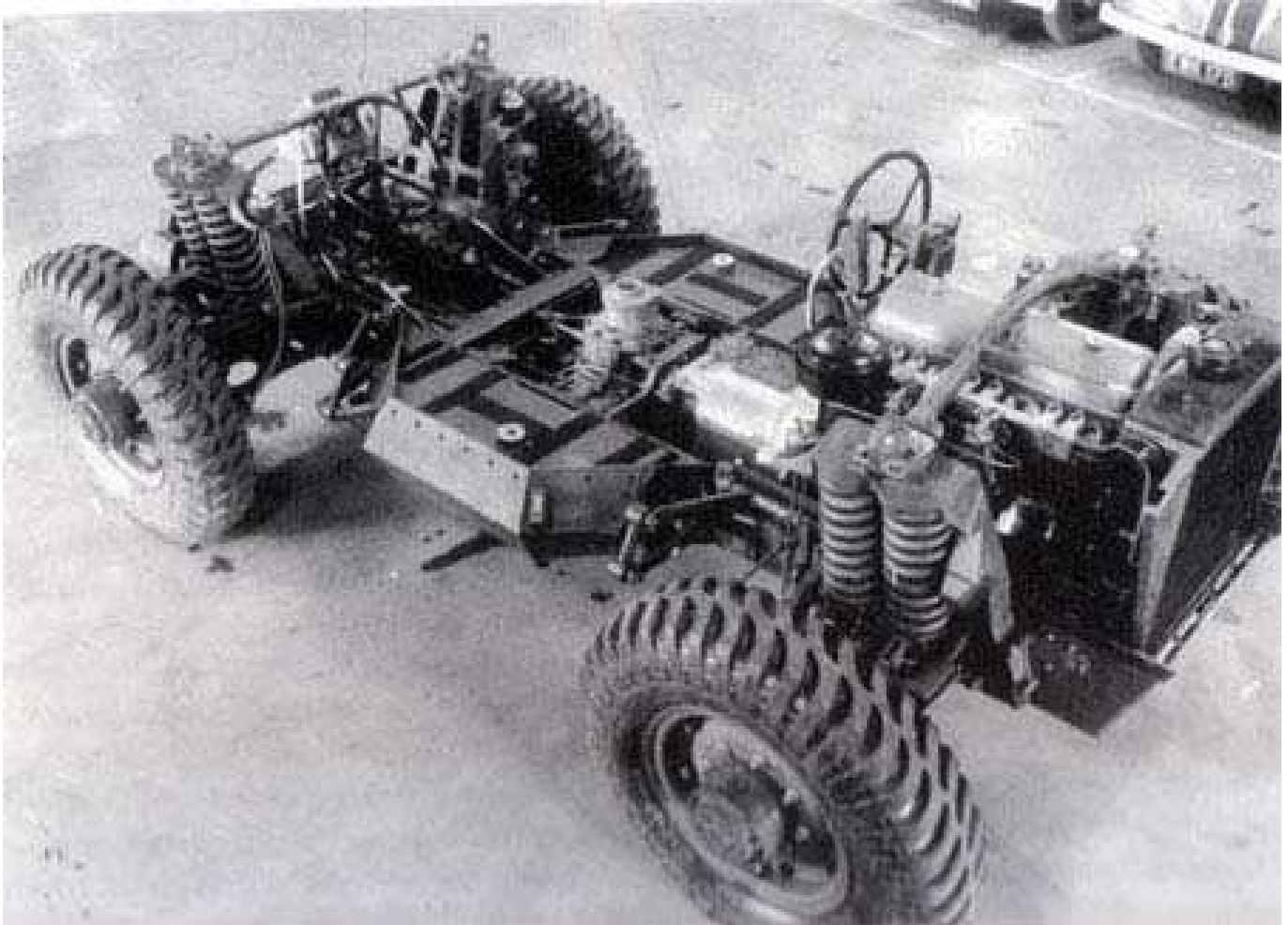
(Photos courtesy of Bovington Tank Museum, numbers not known)

DESCRIPTION: A demonstration of the big Daimlers off road ability.



2,694 armoured cars were built by Daimler.

Surviving vehicles are highly prized among UK vehicle collectors, while Mk I is on display in the Imperial War Museum in London and the Museum of British Road Transport in Coventry and an Mk II at the Tank Museum in Bovington.



(Photo courtesy of Daimler.co.uk)

DESCRIPTION: The car stripped of the armour.

Note the following:

Two low level fuel tanks protected by their own armoured casing and the provision of the two steering wheels, the farthest one for the driver and nearest one for the commander to aid quick reversing.



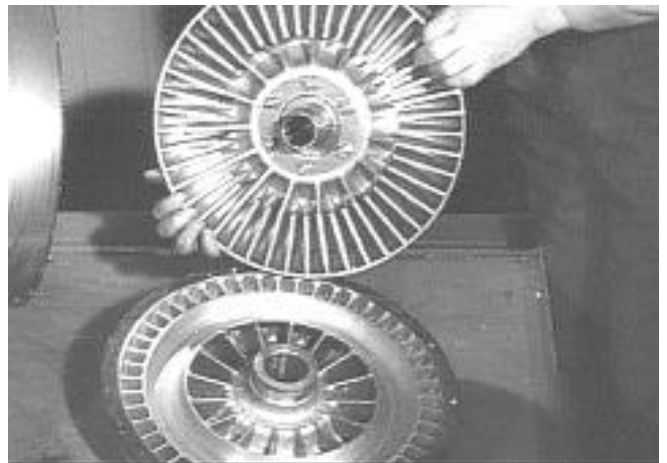
Fitting the wheels



completed chassis and engine assembly



Fitting the turret



the fluid flywheel half's



On training exercise



commander and gunner

Images courtesy of the IWM film section & Norman Barr

PHOTOGRAPHER: WD training film

DESCRIPTION: images are screen shots from the original WD crew training film for the Daimler armoured car

Circa 1942



Basic Statistics

Length 13' 2.5" (hull only 13')
Width 8' 10"
Height 7' 4"
Ground Clearance 1' 4"
Wheelbase 8' 6"
Wheel Track 6' 6"
Tyres 10.5 or 11 by 20
Approx Weight 6.75 ton empty, 7.75 tons in battle order
Bridge Class 7
Speed 50mph
Range 205 miles
Fording depth 4' prepared

Armament

2pdr gun with 52 rounds
7.92mm BESA with 2,700 rounds
.303" Bren AA with 500 rounds
.45" Thompson with 200 rounds or 9mm Sten machine carbine with 300 rounds
2 x 4" smoke dischargers or (post-war) two sets of six barrel smoke grenade launchers

Armour

16mm turret front & mantlet, hull rear
14mm hull front & turret sides
10mm hull sides
8mm turret & hull top
7mm hull floor
Radio No 19 set



(Photo courtesy of internet – site unknown)

DESCRIPTION: Daimler in northern Europe. Most units used the vehicles as issued, not only as armoured cars but as homes, so often carried large amounts of stowage.

This was draped over and fitted to the mudguards and engine covers, turrets were left clear and usually space left to allow a good view through the rear driving lookout.



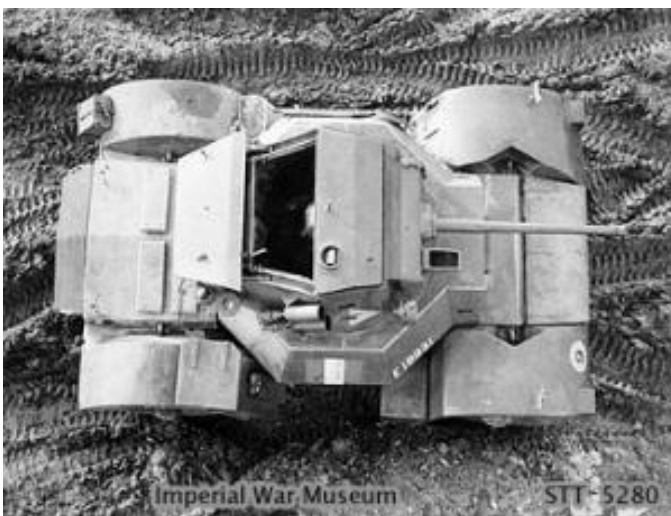
Mark 1 Daimler Armoured Car



Image courtesy of Daimler.co.uk

PHOTOGRAPHER: unknown

DESCRIPTION: the Daimler armoured car climbing a steep bank, the car was designed to climb up to a 1 in 2 slope and be tilted to the side without overturning up to 50 degrees
Circa 1942



(Photoscourtesy of Bovington Tank Museum, numbers not known)

DESCRIPTION: Mark 1 Daimler Armoured Car (F19931).

The mark one car used the turret that was used on Tetrarch tank except that smoke dischargers were fitted to the turret sides.



Mark 1 CS Daimler Armoured Car Close Support



(Photos courtesy of Bovington Tank Museum, numbers not known)

DESCRIPTION: Mark 1 Close Support

A version with a 3 inch (76.2 mm) Howitzer that could fire both HE and smoke was also few produced, but not in great numbers, perhaps following the then current tank policy of CS or Close Support vehicles.

These do not seem to have seen action.

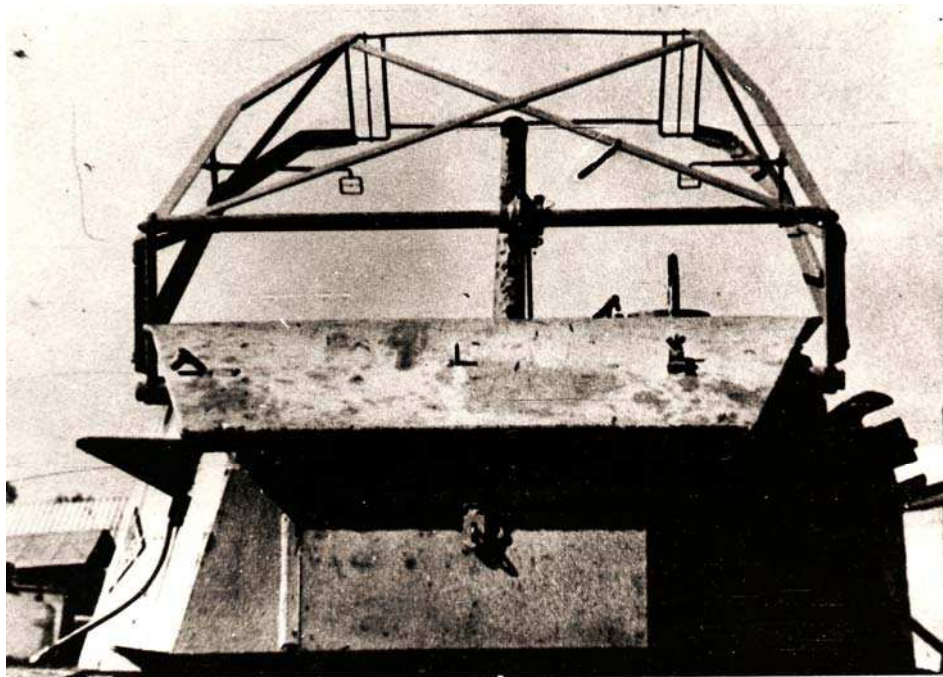
Units used either 75mm gun on half-tracks or other types of car such as AEC Matadors for heavy firepower.



Mark 1 HA, Daimler Armoured High Angle Gun Mounting



(Photo courtesy of Bovington Tank Museum, number not known)



(Photo courtesy of Bovington Tank Museum, film 437C)

DESCRIPTION: DAC Mk 1 HA Experimental model carried out in the middle east to produce extra high elevation to the 2pdr and BESA MG main armament.

A special sight arrangement with linking to gun was mounted onto of the turret and it would allow the target to be sighted by both turret crew.



The sighting arrangement is similar to that found on Bofers anti-aircraft guns, and it is assumed that the both crew members would be responsible for traversing and raising gun elevation.



Mark 2 Daimler Armoured Car

DAC F208344



DAC F20894



(Photocourtesy of IWM & Bovington Tank Museum, numbers not known)

DESCRIPTION: Improved turret with additional armour around the pistol port, modified gun mount, better radiator, driver escape hatch above the front view port, and larger rear view port for reversing.



Mark 3A Daimler Armoured Car.



(Photo courtesy of IWM-B-10147)

Photographer's name: Laing (Sgt) - No 5 Army Film & Photographic Unit
THE BRITISH ARMY IN NORTH-WEST EUROPE 1944-45

DESCRIPTION: Regimental command version, known as SOD (Sawn-Off Daimler), and other recce vehicles on the road near Lille St Hubert (St Huibrechts), 20 September 1944.

The SOD were converted Heavy Daimler cars used to make up for the lack of available scout cars in late 1944-45.

The Inns of Court Yeomanry overcame a lack of scout cars in 1944 by taking turrets and mudguards off some of their cars. A Bren gun was carried as anti aircraft protection, together with the PLM mounting to allow it to be used from under armour, although I have never seen photos of either fitted.

The turret less regimental command version was known as the SOD (Sawn-Off Daimler)



Image courtesy of the IWM H24027
PHOTOGRAPHER: Spender (Lt): War Office official photographer

THE BRITISH ARMY IN THE UNITED KINGDOM 1939-45

DESCRIPTION: Daimler armoured car F20023 and infantry advance through a smokescreen during a large-scale exercise in Salisbury involving regular troops, the Home Guard and civil defence workers, 26-27 September 1942



Image courtesy of the publication Household Cavalry at War by ORDE

PHOTOGRAPHER: War Office official photographer

DESCRIPTION: Weymouth, Household Cavalry Daimler armoured car heading for the shore after waterproofing tests in rough seas.

13 December 1943.



Image courtesy of the IWM H34779

PHOTOGRAPHER: Hardy (Sgt) War Office official photographer

DESCRIPTION: Daimler armoured car F2073?? on the beach at Weymouth during landing trials, unprepared fording depth was 20 inches and prepared depth 3 feet 6 inches.

13 December 1943.

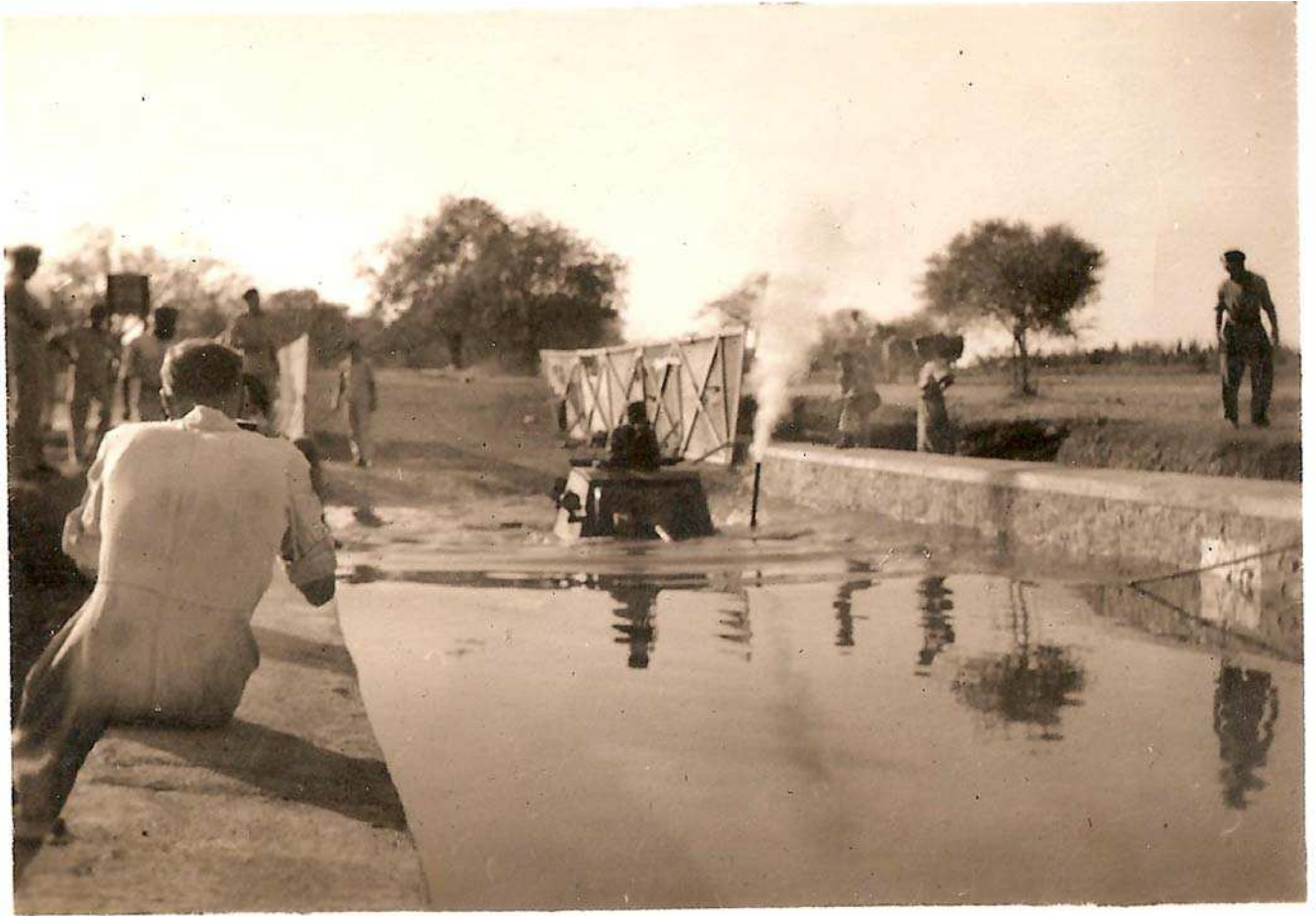


Image courtesy of the authors own collection

PHOTOGRAPHER: Not Known

DESCRIPTION: Daimler armoured car entering a depth trail with a water height of six feet. How the driver is managing to breath can only be guessed, but his head would be at least a foot under the water level

Date unknown.

Other Variants

The 11th Hussars fitted a Vickers Gas Operated Observers Gun (the K as used on SAS jeeps) to the turret top of some of their vehicles in Europe, and from 1944 many cars were fitted the Littlejohn tapered bore extension which with special ammunition improved the performance of the 2pdr and allow for greater armour penetration.

Combat history

They were first used in North Africa during 1941 and 1942, replacing the Marmon-Herrington vehicles of the 11th Hussars. It was also used in Europe and a few vehicles in the South-East Asia theatre. To improve the gun performance, some Daimlers in the European Theatre had their 2 pounders fitted with the Littlejohn adaptor which worked on the squeeze bore principle.

Daimlers were used by the territorial units of the British Army until 1960s, outlasting their planned replacement, the Coventry Armoured Car.



Image courtesy of the authors own collection

PHOTOGRAPHER: Not Known

DESCRIPTION: Daimler armoured car F339226, post war number 85ZR63 on exercise
Date and location unknown.