

ALVIS SCARAB - SPECIFICATIONS

DRIVE-LINE

Engine

Mercedes-Benz 6 cylinder diesel engine with direct injection (6370cc), water cooled, type OM906 LA (Euro 3), 180kW (240hp) @ 2200rpm, turbo charger with intercooler, Farr cyclonic dynacell air filter and air compressor.

Gearbox

Allison MD 3560, 6 speed transmission with torque convertor.
The transmission can be locked in 1, 2, 3, 4, 5, Drive, Neutral, and Reverse.

Axles

Mercedes-Benz portal axles with hub reduction. Permanent rear wheel drive with pneumatically operated four wheel drive and differential locks in both axles. Central tyre inflation and ABS are standard.

Electrical System

Two 110amp alternators producing 28V.

Suspension

4 coil springs, front and rear telescopic shock absorbers. Anti roll stabilisers for front and rear axles.

Steering

Hydraulic power steering.

Brakes

Pneumatic power brake with air over hydraulic, twin disc callipers on front and single on rear, spring loaded parking brake acting on rear wheels.

Tyres

365/85R20 Michelin XZL with run flat inserts as an option.

OPERATIONAL CRITERIA

Dimensions

Length	5283mm
Width	2405mm
Height to roof	1890 – 2004mm (CTIS dependent)
Ground clearance TMRP-6	480mm (without protection kit added)
Wheelbase	2820.5mm
Wheel track (nominal)	1963mm
Maximum unladen weight	9.1 tonnes
Battle weight	up to 11.1 tonnes
Payload capacity	2.5 tonnes
Vertical obstacle	350mm
Trench crossing	600mm

Performance

Approach angle	44°
Departure angle	42°
Static Tilt angle	45°
Turning circle	< 17m wall to wall
Maximum speed	110km/h on road
Power/Weight ratio	25.4HP/Tonne
Range	>600km at 70km/h on roads
Fording depth	1m without preparation
Climatic Range	Storable, Operable and Habitable from A1 through to C1

Function and Fittings

Crew	3 to 5
Hatches	Up to 2 side doors, driver's hatch and 2 crew hatches
Armament	7.62mm/0.50cal/AGL and up to 20mm cannon 6 smoke grenade dischargers 2 fragmentation grenade dischargers
Windows	Glass/Polycarbonate
Radios	2 antenna bases fitted Provision for 2 radio sets

Environmental

Crew heating and HVAC as standard
Crew water heater
(fuel fired module available as option)
NBC Collective Protection system as option

Recovery

Paired recovery eyes at front and rear (self recovery winch available as option)
Inter-vehicle start socket fitted
NATO tow hook and 12 pin trailer socket available as options.

PROTECTION

The entire vehicle is protected against 7.6mm AP and lesser small arms threats at point blank range, all round in azimuth and from -10° to +30° in elevation.
The crew area of the vehicle is protected against 12.7mm AP horizontal attack over the 60° frontal arc at point blank range.
It is also protected against 14.5mm AP horizontal attack at ranges of over 600m.

The vehicle is protected against 90% of all fragments from 155mm shell bursts at a distance of 10m and beyond (hemispherical protection).

Mine protection has been built in from the start, with the vehicle being protected against blast mines containing explosive charges equivalent to 7kg TNT under the wheels and anti-personnel mines and hand grenades for the full vehicle width.

An enhanced mine protection kit is available to protect against TMRP-6 mines and lesser self-forging fragment mines anywhere under the vehicle.

SCARAB
ARMoured SCOUT AND LIAISON VEHICLE

MOBILITY

BALLISTIC PROTECTION

MINE PROTECTION

PAYLOAD/STABILITY

STEALTH

TERRAIN ACCESSIBILITY

UNIMOG BASE

AIR TRANSPORTABILITY

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THE OPTIMUM SOLUTION FOR PROTECTED MOBILITY

The Alvis Scarab has been developed in response to soldier's demands for a go anywhere armoured scout and liaison vehicle. Based upon the latest Mercedes Unimog engine and running gear, it has superb mobility and reliability, and can be easily supported by a worldwide network of dealers and technical workshops.

Scarab's protection exceeds that of any other vehicle of its type. With a weight range of between 9 and 12 tonnes, it may be armoured against heavy machine gun fire over the frontal arc, whilst retaining 7.62mm AP protection all-round. Appliqué armour systems are under development to give even higher levels of protection.

Mine protection has been built in from the start, including self forging fragment tank-killer mines such as the TMRP-6.

The payload also allows for substantial weapons to be fitted, including high power cannons previously considered unavailable to light armoured forces.

Scarab redefines the fast armoured scout/liaison vehicle. It has the flexibility to meet the needs of a wide range of forces from airborne to border patrol units, and the performance to work with conventional, heavy armoured forces.



CONFIGURATIONS/ROLES

Scarab's payload capacity gives it the flexibility to carry equipment for a number of roles. The vehicle has three fundamental configurations.

Scarab Command

In its most basic configuration, Scarab provides protected mobility for command and liaison elements on the battlefield. Scarab can host a full range of modern C³I systems to provide comprehensive communication and situational awareness, combined with extensive under armour stowage capacity for equipment or additional personnel.

Scarab Patrol

The Scarab Patrol carries a one man cupola allowing the operation of 7.62/0.5cal/AGL from under armour.

This configuration has a permanent crew of four, making it ideally suited to roles such as Engineer Recce, Airfield Damage Repair (with mine clearance blade) and EOD.

Scarab Recce

Scarab recce provides economic reconnaissance on the digitised battlefield. An advanced screen-based crew station is at the heart of the system, controlling a fully remote weapon/sensor suite and integrating all on board reconnaissance systems, thus providing the ideal platform for Medium to Close Reconnaissance and forward observation.

