



ML
MOUNTAIN LION
"POWERFUL, GRACEFUL, AGILE... AND ADAPTABLE"





The Mountain Lion is a versatile armored utility vehicle able to fulfil multiple roles on the battlefield. Engineered for a demanding high payload while ensuring crew survivability, the Mountain Lion enhances the mobility of combat forces and extends expeditionary capabilities. The vehicle is also ideally suited for peacekeeping, peace enforcement and policing type operations.



The **Mountain Lion's** unique design incorporates a single piece (monocoque) v-shaped armored hull. This ensures maximum protection from blast threats and offers superb ballistic protection against conventional ammunition and Improvised Explosive Devices (IEDs). Enclosure of all sub-systems within the hull ensures better protection thereof. The vehicle can carry a crew of up to 2 plus 8 soldiers complete with their kit and special equipment for at least a 48 hour combat mission.



Use of applied systems engineering techniques has culminated in unprecedented survivability for both the crew and vehicle. This engineering is founded in the knowledge base from the development and operation of the unrivalled **Husky Vehicle Mounted Mine Detector (VMMD)** as well as through feedback from customers using this vehicle. The **VMMD** has been acquired by the US government on a program of record and successfully deployed in Africa, Middle East, Balkans and Asia. It has also successfully completed arduous and comprehensive testing conducted in South Africa and at the US Army's Yuma Proving Grounds in Arizona, Aberdeen Proving Grounds in Maryland and the White Sands Missile Range in California.



Tactical mobility and crew comfort (endurance) during missions is achieved through the combination of a powerful 300 hp, 810 lb-ft engine coupled with a six speed automatic transmission, suitably matched transfer transmission and planetary axles fitted with double wishbone fully independent suspension and coil springs which have been integrated with **LORD Magneto-Rheological (MR) Semi Active Dampers**.

The Mountain Lion is equipped with the unique **Four Wheel Steer (4WS)** system that has been combat proven on the **Husky VMMD**. This dramatically reduces the turning circle enhancing the Mountain Lion's mobility in close terrain and urban areas.



The vehicle is fitted with an air conditioner providing 10 kW of cooling as well as a 5 kW **Webasto** diesel heater, allowing crews to operate in arctic and desert environments.

Combat proven **Allen Vanguard** blast attenuating seats and **Skydex** energy absorbing floor panels further enhance crew protection and ride comfort.

At present a 570 A **Niehoff** alternator, which delivers a maximum of 14 kW, supplies ample power through a unique **Actia** power management system, to operate a wide range of communication, surveillance and other electronic equipment required by soldiers to survive on the modern battlefield. Further development will see the addition of a second, hydraulically driven, 570 A alternator which in conjunction with the first alternator will deliver up to a monstrous 24 kW of power (with 12 kW available from engine at idle).

The Automatic Fire Extinguisher System (AFES) which is supplied to US Military Specifications by **Kidde USA** provides fire suppression capabilities in the crew and engine compartments as well as for the tires and fuel tank.

Strategic mobility is ensured by the fact that a **Mountain Lion** vehicle can be transported in a C-130 aircraft (without preparation required).

Use of the maximum number of commercial components in the **Mountain Lion** enhances the ease with which the vehicle can be maintained and supported logistically. Removable floor panels and a one-piece engine hood facilitate easy maintenance.

The **Mountain Lion's** ample load capacity allows it to fulfil a wide range of command and control functions as well as route clearance and combat support roles. Easy access and egress is through pneumatic assisted side and rear doors as well as roof hatches. Water White Clear armored windows facilitate excellent all round visibility.

A **Platt MR800** electrically driven armor protected ring mount which can carry a main weapon of the customer's choice is fitted to the **Mountain Lion**. It incorporates a robust ring bearing assembly which has been proven in the harshest environments. The soft mount has four springs which buffer the recoil of the weapon, reducing vibration and increasing accuracy. This can, however, easily be replaced with a **CROWS** or similar remote weapons station, or turret of the customer's choice.

A digi-rack also allows for easy installation and storage of communication and other add-on electronic equipment required.



MOBILITY

1 Suspension

Double wishbone independent suspension axles
MR semi-active dampers
Progressive coil springs
14 in (350 mm) travel

2 Steering

Permanent 4 wheel steering (Proven in Husky VMMD)
Turning circle of 40 ft (12 m)

Power to Weight Ratio

27 hp/ton (20 kW/ton)

Transportability

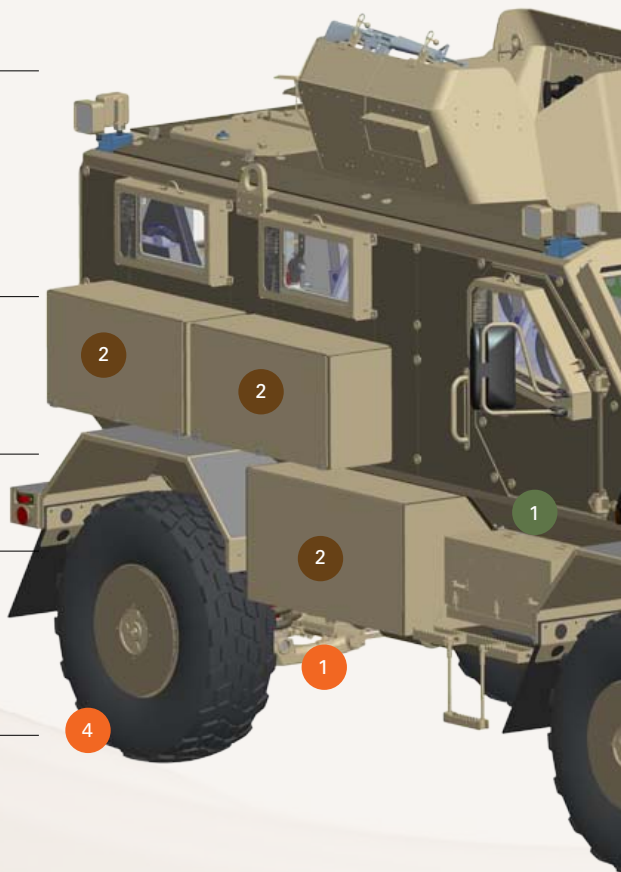
Low height facilitates transport in C-130
Front, rear and central tie-down points
Lifting lugs

3 Recovery

18 000 lbs (8 160 kg) winch
Front and rear recovery points

4 CTIS Modes

Road / Off-road / Sand / Emergency



PROTECTION

1 Blast Protection

Fully enclosed V-shaped hull
Protects crew and vehicle systems
Roof mounted blast attenuating seats
Energy absorbing floor panels
STANAG 4569, Level 3a, b

Ballistic Protection

Exterior and interior bolt-on armor
Tailored to customer requirements
STANAG 4569, Level 3

IED Fragmentation Protection

Exterior and interior bolt-on armor
Tailored to customer requirements
STANAG 4569, Level 5

Fire and Explosion Protection

Cabin and engine bay - automatic activation
Tires - manual activation

2 Situational Awareness

Large side and front windows
Roof mounted spotlights



VERSATILITY



1 Weapons Mount

Up to 38 in (970 mm) diameter ring mount

Accepts turrets up to 1500 lbs (700 kg)
(Manual or remote control)

2 Storage

Various large capacity bins provide storage for crew's kit and equipment

3 Maintenance

One-piece engine hood and "platform" fenders and bumpers provides easy access to engine bay

4 Cabin Rear Access

Large rear door

Easy loading of cargo

Ambulance configuration

5 Cabin Side Access

Large side doors

Ergonomic and robust steps

Seating Options

Option 1: 6 forward facing seats

Option 2: 4 forward plus 4 inward facing seats

Option 3: 2 forward plus 8 inward facing seats

Fitted For But Not With:

Sparks Rollers

Rhino

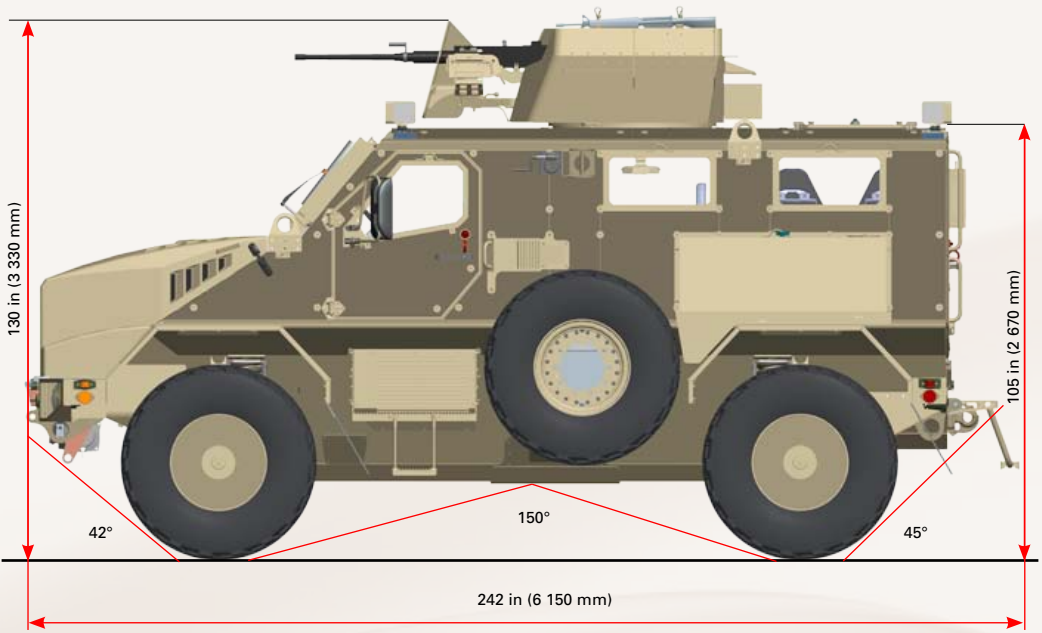
Gyrocam

IED Interrogation Arm

Check 6 rear view camera



Dimensions



Width (excluding mirrors) 99 in (2 510 mm) Ground clearance 16 in (405 mm)

Mass

Curb weight	24 000 lbs (10 900 kg)
Combat weight	28 200 lbs (12 800 kg)
Payload	2 600 lbs (1 180 kg)
GVWR	30 800 lbs (14 000 kg)

Powertrain

Cummins QSB 6.7 6 cylinder turbo diesel
300 hp / 810 lb-ft (diesel/JP8)

Allison 3000SP 6 spd auto transmission with retarder

Marmon Herrington MVG750 transfer case with low range

Brakes

Pneumatic dual circuit

Disk brakes all round

ABS

FMVSS 121 certified

Wheels

10 x 20" steel or aluminium rims

395/85 R20 or 14.00 R20 tires

Hutchinson run flat inserts

Performance

Max speed	65 mph (105 km/h)
Max acceleration	0-30 mph (50 km/h) 11 sec
Max gradient	70%
Max side slope	30%
Range	500 mi (800 km)
Min operating temperature	-26° F (-32° C)
Max operation temperature	135° F (57° C)

Electrical

24 V

Actia power management system

Niehoff N1609 570 A alternator

14 kW @ max engine speed (Current)

12 kW @ engine idle speed (Under development)

24 kW @ max engine speed (Under development)



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