

HMMWV

M 9 9 8 A 2 S E R I E S

S P E C I F I C A T I O N S & P E R F O R M A N C E D A T A



Since its fielding

the High Mobility Multi-purpose Wheeled Vehicle (HMMWV) has served soldiers around the world. From peacekeeping operations to combat, the HMMWV has proven itself again and again as the most versatile, dependable and mobile tactical wheeled vehicle available today. Just ask the soldiers who drive them.

The concept of a single platform with multiple mission roles is critical to reducing logistics complexity. HMMWV is that platform. With over 65 different combat and combat support systems already fielded on HMMWVs, it's no wonder that HMMWV is the light tactical wheeled vehicle of choice.

AM General continues to improve the capabilities of HMMWVs by incorporating the latest automotive technology to better satisfy the expanded roles and missions of armed forces worldwide. The "Expanded Capacity" HMMWVs are a perfect example. These HMMWV variants have a greater payload and a more powerful diesel engine than the standard HMMWVs.

Compare the HMMWV family of vehicles to any other light tactical wheeled vehicle, and we're sure you'll agree: nothing else is as mobile, dependable, or cost effective. Multiple missions...single platform. HMMWV.

Built to the rigid quality standards of ISO 9001.

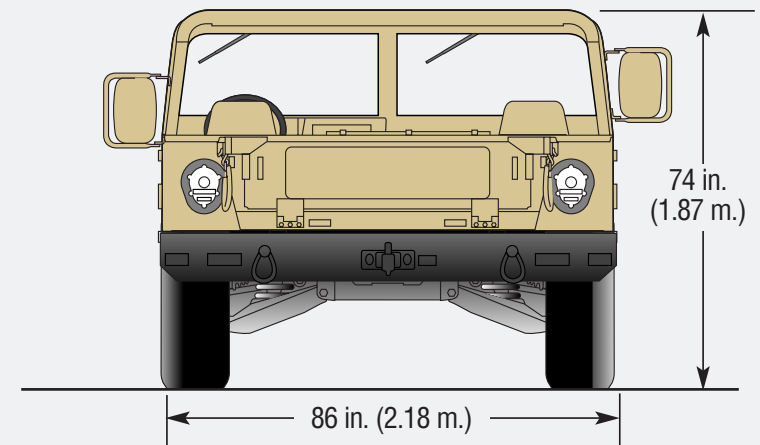
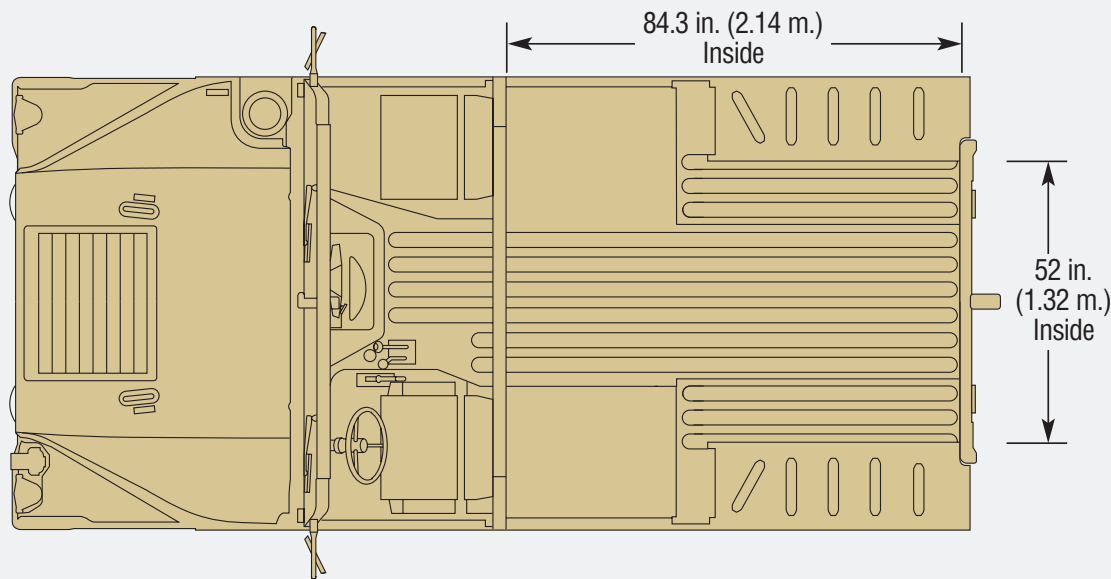
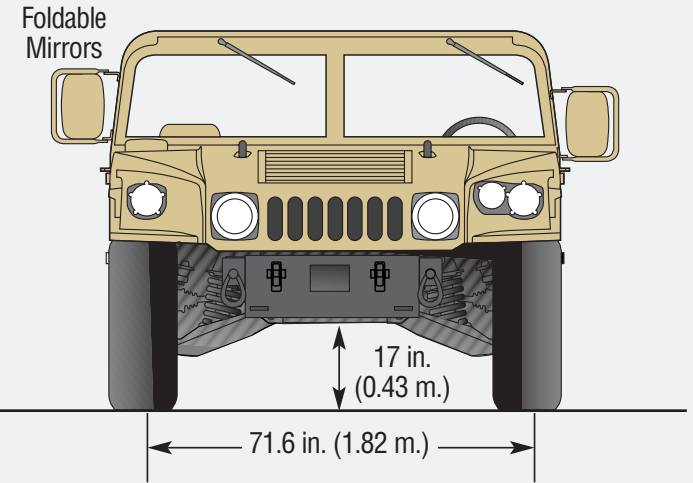
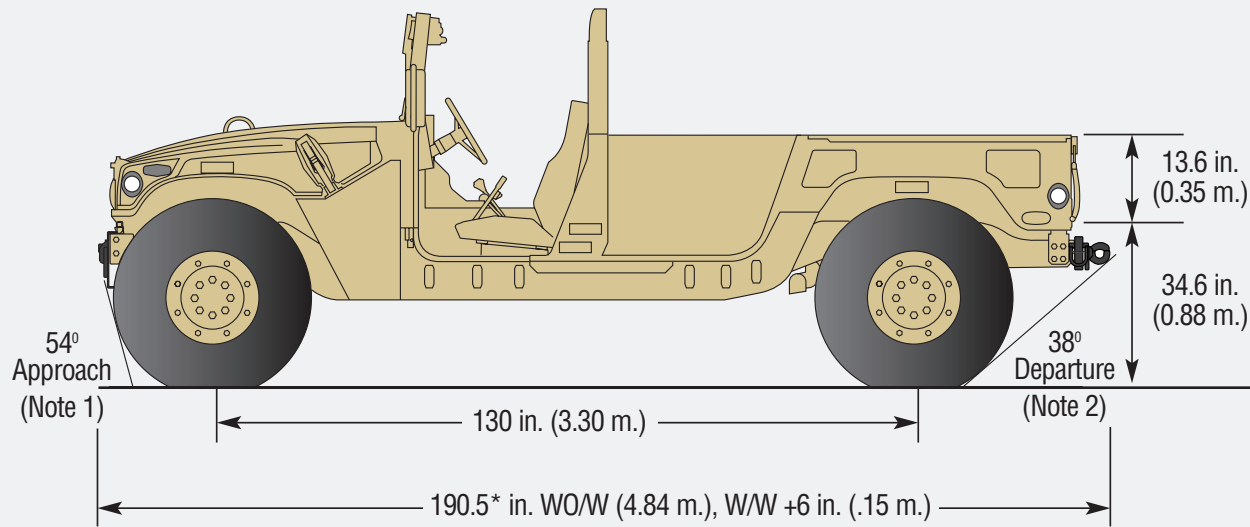


**Over
160,000
HMMWVs**



have been delivered to the United States Armed Forces and more than three dozen overseas nations. HMMWVs, available in numerous configurations, are built to meet the most severe needs of the military. The HMMWV's frame rails and cross members are constructed from high grade alloy steel that is hot dipped galvanized. Once the steel substructure is assembled, E-coating is applied to provide additional corrosion protection. The body is aluminum to reduce weight and provide resistance to corrosion. Aluminum body panels are riveted and glued together with technologically advanced bonding adhesives to provide additional strength. The AM General designed geared hub assembly both doubles the torque to each wheel and helps provide 17.0 inches (0.43m) of ground clearance, more than any other vehicle in its class. The use of double A-arm independent suspension front and rear, contributes to the HMMWV's unsurpassed mobility. The four-wheel disc brakes are mounted inboard near the differentials both of which are located up, between the frame rails, protecting them from debris. The 6.5L diesel engine coupled to a four-speed automatic transmission and full time four-wheel drive transfer case provide the HMMWV its outstanding performance. And, the unique design of the torque-biasing differentials allows the vehicle to lose traction in up to three wheels without immobilizing the vehicle. For unbeatable performance...HMMWV.

M1097A2 Basic Dimensions (at curb weight):



*M1123 is 182.5 in. WO/W (4.63)
 Specifications and performance data are subject to change without notice.

¹Approach angle WO/W between 45° to 56° depending on model
²Departure angle between 35° to 46° depending on model

M998A2 Series Common Components

Engine: *

Type: V8, 6.5L Diesel Fuel Injection, Naturally Aspirated (N.A.), EPA Compliant
Horsepower (@3,400 RPM): 160HP (120 KW)
Torque (@1,700 RPM): 290 lb.-ft. (393 N•m)
Governor Type: Mechanical
Displacement: 400 cu. in. (6.5L)
Bore & Stroke: 4.06x3.82 in. (10.3x9.7 cm.)
Compression Ratio: 21.3:1
Fuel Capacity: 25 gal. (94 L) (useable)

Transmission: 4-speed automatic with a maximum input torque rating of 451 lb. ft. (612 N•m).

Gear ratios are:

1st - 2.48:1 2nd - 1.48:1 3rd - 1.0:1 4th - 0.75:1

Reverse - 2.08:1

Torque converter ratio - 2.1:1

Transfer Case: Gear ratio: Low - 2.72:1; High - 1.01:1

Axles: Hypoid with a ratio of 2.73:1. Continuous torque rating: 1281 lb. ft. (1737 N•m).

Geared Hubs: Gear ratio: 1.92:1

Frame: Steel box section with 5 crossmembers.

Electrical: 12/24 volt waterproof 200 amp. alternator. 400 amp. alternator is available as a kit.

Steering: Power assisted with a variable ratio of 13/16:1

Differential: Torque Biasing Differential.

Brakes: Hydraulically actuated, four wheel inboard mounted power disc brakes with dual reservoir master cylinder. Rotors are 12.0 in. (0.30m.) in diameter with an effective area of 21.4 in.² (0.014m.²) each. The parking brake manually activates the rear service brakes.

Suspension: Independent double A-frame with open end coil springs and hydraulic shock absorbers.

Tires: 37x12.5 R16.5 LT load range "D" Radial with low profile runflat device.

Wheels: 3,850 lbs. (1,747 kg.) capacity 16.5x8.25 2 piece take-apart wheels.

*Not applicable to expanded capacity models

Series Applicable Performance (at GVW):

Maximum Speed: 70 mph (113 kmph)

Grade Capability: 60%

Run Flat Capability: 30 miles at 30 mph (48 km at 48 kmph)

Side Slope Capability: 40% (M1097A2 w/shelter 30%)

Ramp Breakover Angle: 31.5°

Turning Radius (curb to curb): 25 ft. (7.62 m.)

Deep Water Forging: w/o kit- 30 in. (0.76 m.); with kit-60 in. (1.52 m.)

The performance indicated does not reflect the capability of the HMMWV, but rather reflects the performance required by the U.S. military.

Transportability/Deployed

- Air transportable in C-130 (3)**, C-130J-30 (4)**, C141E (6), C-17 (10), and C5A (15 HMMWVs)
- Slung under CH-47 (2), CH-53 (2), and UH-60 (1)**.
- All models except the M997A2 Ambulance may be deployed by low velocity air-drop. (Shelters must be removed from M1097A2 variants before air-drop)

**Not to include M997 Ambulance and Armored HMMWVs.

Armament Provisions

- MK 19 40mm Grenade Machine Gun
- .50 cal M2HB or M2HB-QCB Machine Gun
- Giat 20mm M621 Cannon
- 106mm Recoiless Rifle
- Giat 30mm M781 Cannon
- GAU-19 .50 cal 3 Barrel Gattling Gun
- 7.62mm General Purpose Machine Gun
- 5.56mm General Purpose Machine Gun
- 30mm ASP®-30 Cannon
- TOW and TOW II Anti-Tank Missile Systems
- Stinger, Mistral and Starburst Anti-Aircraft Missile Systems
- Milan Anti-Armor Missile System
- Prime Mover for M101, M102, and M119 Howitzers

ASP® is a registered trademark of the McDonnell Douglas Helicopter Co.

Optional Equipment:

A wide range of optional equipment is available to enhance the HMMWV's capability and/or enable it to perform specific missions. This includes:

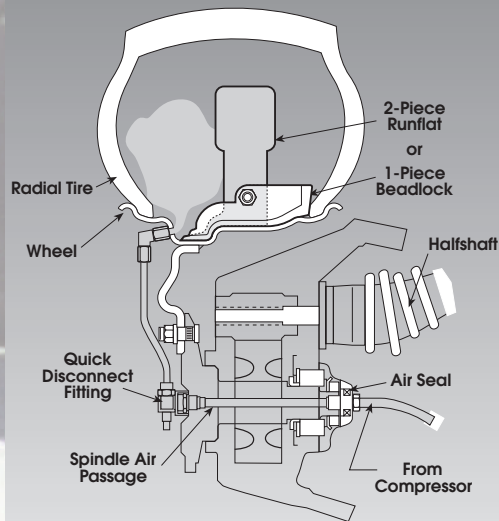
- Dual Antenna Mounts
- Winch
- Deep Water Forging Kit
- Troop Seats (8 soldiers)
- Crew and Cargo Area Canvas
- Arctic Kit
- Countermine Armor Kit
- Hard Top and Doors
- Central Tire Inflation System (CTIS)
- Desert Filtration Package
- Lightweight Weapons Station Kit
- Driveline Protection Kit
- Spare Tire Carrier
- Bulkhead Spare Tire Kit
- Jerry Can Carrier
- Brush & Headlight Guards
- Special Paints
- Metric Gauges
- Pedestal Weapons Mount
- Air Conditioning

Increased Mobility...

Optional Central Tire Inflation System

The HUMVEE's Central Tire Inflation System (CTIS) enables the operator to adjust tire pressure from the driver's seat, to adapt to changing terrain conditions for greater traction.

When the tire pressure is lowered, the tire footprint becomes wider and longer providing additional traction when needed most. When additional traction is no longer required, an on-board compressor reinflates the tires to the desired pressure. All while "on-the-move".



Sun Visors

Bucket Seats

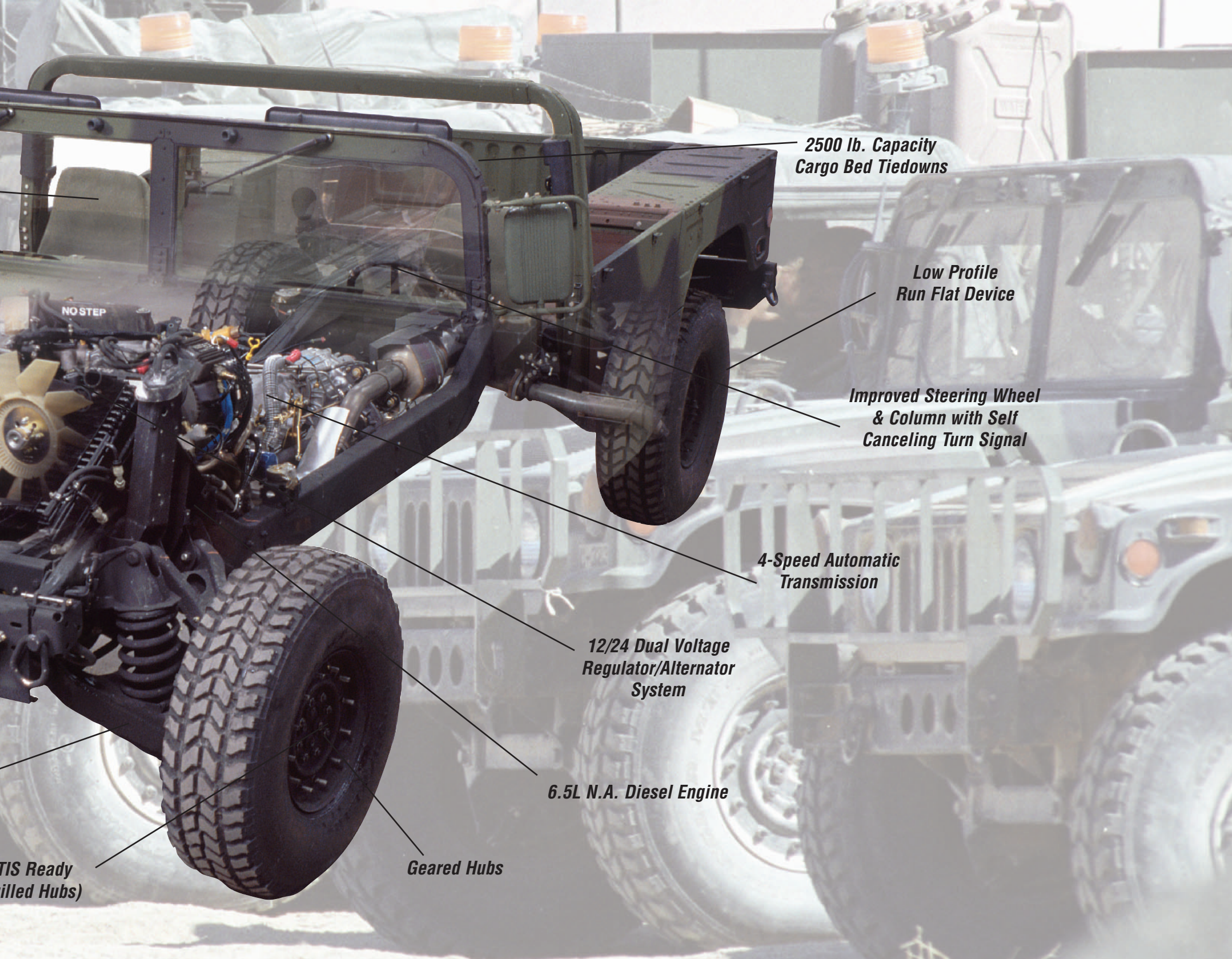
Improved Defroster/Heater System

LED Sidemarkers

Inboard Mounted 12" Disc Brakes (Front & Rear)

4-Wheel Double A-Arm Independent Suspension

CTIS (Drille



**2500 lb. Capacity
Cargo Bed Tiedowns**

**Low Profile
Run Flat Device**

**Improved Steering Wheel
& Column with Self
Canceling Turn Signal**

**4-Speed Automatic
Transmission**

**12/24 Dual Voltage
Regulator/Alternator
System**

6.5L N.A. Diesel Engine

Geared Hubs

**TIS Ready
(Filled Hubs)**

NO STEP

Expanded Capacity HUMWVs...

The Expanded Capacity **HUMVEEs** are designed to carry heavier payloads without sacrificing the **HUMVEEs'** mobility, dependability and performance. The M1116 and the M1114 are up-armored versions of the M1113. The armor is designed to defeat 7.62AP ammunition, 12 lb. anti-tank mines and 155mm overhead bursts.



Engine: TYPE - 6.5L Turbocharged Diesel, EPA Compliant HORSEPOWER (@3,400 RPM): 190 HP (142 KW)
TORQUE (@1,700 RPM): 380 lb. ft. (515 N m) **COMPRESSION RATIO:** 21.5:1 **Axles:** Hypoid with a ratio of 3.08:1
 All other Specifications are identical to the M998A2 Series.

M1113

Curb Weight (Note 1)	6,400 lbs. 2,903 kg.	Accel. (Min. at GVW):		
Payload (Notes 1&2)	5,100 lbs. 2,313 kg.	0-30 mph (48 kmph)	9.4 sec.	9.4 sec.
Gross Vehicle Weight (GVW)	11,500 lbs. 5,216 kg.	0-50 mph (80 kmph)	26.1 sec.	26.1 sec.
Gross Axle Weight Rating:	Front/Rear	Cruising Range (Minimum)	275 mi.	443 km.
	5,080 lbs. 2,290 kg./7,000 lbs. 3,176 kg.	CGX (Note 3)	60.4 in.	1.53 m.
Length (Note 1)	196.5 in. 5.00 m.	CGY (Note 3)	.06 in.	.015 m.
Height (w/o shelter)	76 in. 1.93 m.	CGZ (Note 3)	29.7 in.	.76 m.
Min. Reducible Height	56 in. 1.42 m.	Spring Rate: Front	1750 lb./in.	306 N/mm
Reduced Shipping Cube		Rear	3,000 lb./in.	525 N/mm
(w/o shelters)	548 ft. ³ 15.5 m. ³	Troop Seating Capacity		1+1
Approach Angle	46°			
Departure Angle	41°			

M1114

Curb Weight (Note 1)	9,800 lbs. 4,447 kg.	Accel. (Min. at GVW):		
Payload (Notes 1&2)	2,300 lbs. 1,043 kg.	0-30 mph (48 kmph)	9.4 sec.	9.4 sec.
Gross Vehicle Weight (GVW)	12,100 lbs. 5,489 kg.	0-50 mph (80 kmph)	26.1 sec.	26.1 sec.
Gross Axle Weight Rating:	Front/Rear	Cruising Range (Minimum)	275 mi.	443 km.
	5,300 lbs. 2,404 kg./7,000 lbs. 3,175 kg.	CGX (Note 3)	67.65 in.	1.72 m.
Length (Note 1)	196.5 in. 5.00 m.	CGY (Note 3)	.06 in.	.015 m.
Height (w/o weapons)	76 in. 1.93 m.	CGZ (Note 3)	32.9 in.	.84 m.
Min. Reducible Height	72 in. 1.83 m.	Spring Rate: Front	2000 lb./in.	350 N/mm
Reduced Shipping Cube	782 ft. ³ 27.1 m. ³	Rear	3000	575
Approach Angle	45°	Troop Seating Capacity		1+3
Departure Angle	35°			

M1116

Curb Weight (Note 1)	9,800 lbs. 4,447 kg.	Accel. (Min. at GVW):		
Payload (Notes 1&2)	2,300 lbs. 1,043 kg.	0-30 mph (48 kmph)	9.4 sec.	9.4 sec.
Gross Vehicle Weight (GVW)	12,100 lbs. 5,489 kg.	0-50 mph (80 kmph)	26.1 sec.	26.1 sec.
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Approach Angle	45°	Troop Seating Capacity		1+3
Departure Angle	35°			

The M1114 and M1116 are armored by D'Gara-Hess & Eisenhardt, a world leader in vehicle arming and personnel protection systems. HUMVEE is a registered trademark of AM General Corporation.

International Cooperation

AM General has joined with other leading Defense Contractors around the world to develop vehicles based on the Humvee chassis or drivetrain and suspension components. The Swiss firm, MOWAG, and Turkish firm, Otokar, have each designed, tested and produced unique vehicles which provide outstanding mobility and performance combined with the reduced logistical costs of the Humvee.

EAGLE

The lightweight EAGLE is ideally suited for reconnaissance surveillance, liaison, escort, border patrol and police missions. EAGLE utilizes the HUMVEE chassis, ensuring outstanding mobility and performance. It is an NBC-tight, air conditioned and armor protected vehicle. EAGLE is in service and available in several configurations with varying levels of armor protection. The EAGLE can be fitted with a wide assortment of armaments which can be mounted to either manually or remotely operated turrets.



COBRA

The Cobra armored platform is the base of a family of rugged, powerful and reliable vehicles. It provides full armor protection for a crew of 4 to 11 depending on configuration. COBRA is available in 7 different configurations from Personnel to Weapons carrier. In addition COBRA is available with either a manually or remotely operated turret and can be fitted with a wide assortment of armaments. An optional swim kit is available.





Avenger



Hardtop Cargo



Armored Special Operations



Recoilless Rifle



Special Operations



Special Operations



Matra Mistral

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Starburst Missile



Right Hand Drive



Special Operations



M1116 Up-Armored



Armored Special Operations