



FMTV A1

The Platform of Choice

FMTV A1: THE MOST CAPABLE, RUGGED AND RELIABLE FAMILY OF MEDIUM TACTICAL TRUCKS...EVER!

With a century of experience in designing, manufacturing and servicing wheeled vehicles, **Stewart & Stevenson®** has earned a reputation for outstanding service and quality. Since World War II, **Stewart & Stevenson** has proudly built and supported vehicles of all types for the U.S. military.

The trucks and companion trailers that make up the Family of Medium Tactical Vehicles (FMTV) are produced by Stewart & Stevenson Tactical Vehicle Systems, LP in its state-of-the-art facilities in Sealy, Texas. After more than a decade of FMTV production — first with the A0 truck model and now with the enhanced A1 model — it's safe to say that **Stewart & Stevenson** is "Setting the Standard."

COMMONALITY AND VERSATILITY: THE PLATFORM OF CHOICE

With a growing number of truck variants and two trailers in the family, the versatile FMTV easily performs a vast array of missions. Both the trucks and companion trailers come in 2.5-ton and 5-ton payload capacities. With 85% commonality among truck variants and 80% commonality between the truck and trailer platforms, logistics support requirements are significantly reduced due to the constrained range of FMTV components, kits and parts.

Stewart & Stevenson's high quality, rugged medium tactical truck is so versatile and agile that the FMTV chassis has become and will continue to serve as the "*Platform of Choice*" for a wide range of programs. The FMTV chassis is the platform beneath the Army's new High Mobility Artillery Rocket System (HIMARS), Height-Reducible Electronic Enclosure (HREE) and a new class of Load Handling System (LHS). It also serves as an experimental platform for a tilt bed transporter of an XM777 Light-Weight Howitzer, a Hybrid Electric Vehicle (HEV) propulsion system as well as the Mongoose, a mine field breaching system.

UNPARALLELED PERFORMANCE AND QUALITY

FMTV is the most reliable and dependable off-road truck ever built for the U.S. Army. Sustaining a 98% operational readiness rating — the highest of any U.S. military tactical vehicle — soldiers can rely on FMTV to perform above and beyond expectations. During demanding Army tests, the FMTV demonstrated over 13,000 miles between failure (over two times the requirement).

To maximize corrosion protection, **Stewart & Stevenson's** FMTV trucks and trailers undergo a high-tech 13-stage electrodeposition ("E-Coat") primer process. The FMTV was the first military vehicle ever to successfully complete the U.S. Army's full-scale 22-year accelerated corrosion and durability test at the Aberdeen Test Center.

HIGHLY DEPLOYABLE

The FMTV is the largest payload capacity Army truck transportable via C-130 aircraft with full payload and can be helicopter lifted via integral “Heli-lift” arms that also aid in ship loading. The truck can be prepared for air transport in as little as seven minutes and certain truck variants are certified for Low Velocity Air Drop (LVAD).

Stewart & Stevenson’s FMTV trailers meet all Joint Service Operational Requirements (JSOR) for air transportability, including helicopter lift and certification for LVAD from C-130 and larger aircraft.



SAFE, SURVIVABLE AND MANEUVERABLE

Army Safety Center statistics show that **Stewart & Stevenson’s** FMTV A1 has one of the strongest safety records of any military truck, especially when compared to the predecessor vehicles it replaces. The “cab over” design provides the driver with increased ground visibility. Seven-speed fully automatic transmission, power steering and power brakes make the truck responsive and easy to drive. The FMTV is the first tactical off-road truck to incorporate an Anti-lock Brake System (ABS) to further enhance safe operations. The FMTV’s unique hard top design and all steel cab with reinforced roof pillars provide increased protection for the soldiers.



UNSURPASSED ENGINEERING EXCELLENCE WITH A VISION TOWARDS THE FUTURE

At **Stewart & Stevenson’s** sophisticated research and development technical center, engineers continuously design and develop enhancements to the FMTV. The company has pursued development of innovative propulsion options, including the production of FMTV Hybrid Electric Vehicle (HEV) prototypes, in conjunction with industry/government teams, that have the potential for substantial fuel efficiencies and on-board power generation.

Our dedicated FMTV manufacturing and assembly facility integrates lean manufacturing and one-piece flow processes similar to those utilized by the best automobile manufacturers in the world. As part of a large and innovative facility expansion program, **Stewart & Stevenson’s** fabrication and welding center increases the company’s core competencies by enabling it to manufacture certain FMTV components in-house, providing greater flexibility and faster response to our customers’ changing needs.



On-site FMTV testing capabilities include a 1.3-mile all weather high-speed track with off-road inclines and a looped test track that mirrors the off-road conditions found at the U.S. Army Aberdeen Test Center.

STEWART & STEVENSON: AN OEM WITH COMPREHENSIVE SERVICE AND LOGISTICS SUPPORT

We at **Stewart & Stevenson** don’t just build FMTV trucks and trailers — we design, maintain, repair and continuously improve them. As a full-service Original Equipment Manufacturer (OEM), we provide comprehensive cradle-to-grave logistics support to fielded vehicles and to the soldiers who operate and take care of them.

Stewart & Stevenson’s Contractor Logistics Support (CLS) centers — located throughout the United States and abroad — are staffed by highly trained service technicians, all with Army maintenance experience, and provide an added benefit by offering convenient, on-site FMTV truck and trailer services and training.

We make sales of FMTV parts simple and convenient by offering complete aftermarket product support — online, 24 hours a day, 365 days a year, at our fmtvtruck.com website. Through an innovative partnership with the Defense Logistics Agency (DLA), **Stewart & Stevenson** also sells FMTV parts through the Internet via the Defense Supply Center Inventory Locator Network (“DILNet”).



FMTV A1

Capability, Reliability, Maintainability, Deployability

SPECIFICATIONS

ENGINE

ENGINE TYPE

- Caterpillar heavy-duty diesel, 6-cylinder electronic fuel-injected turbocharged & aftercooled, EPA certified
- 442 cu. in. (7.2L)

HORSEPOWER (@ 2,400 RPM)

- 2.5 Ton LMTV 275 HP (205 kW)
- 5.0 Ton MTV 330 HP (246 kW)

TORQUE (@ 1,600 RPM)

- 2.5 Ton LMTV 817 lb-ft (1,107 N.m)
- 5.0 Ton MTV 851 lb-ft (1,153 N.m)

GOVERNOR TYPE

- Auto/Electrical Displacement

BORE & STROKE

- 4.33 X 5.00 in. (110 X 127mm)

FUEL

- Diesel, DF-2, JP-4, JP-8, VV-F-800, 58 gal. nominal

OIL

- MIL-L-2104D, MIL-L-46167, 22 qt. (21L)

ELECTRICAL

- Alternator engine-driven, 12/24 volt, waterproof EMI/RFI suppressed with 100 amp standard rating (200 amp option)
- 24 volt waterproof starter
- SAE J1708 & J1939 communications data buses
- HAEMP hardened

EXHAUST RETARDER

- Enhanced mountain brake performance
- Improved Arctic warm-up characteristics

TRANSMISSION

TRANSMISSION TYPE

- Allison MD 3070 PT, Automatic/select 7-speed, electronically controlled
- Full-time all-wheel drive with integral transfer case

TORQUE SPLIT

- Normal operations, 30% front, 70% rear
- Off-road, equal front and rear

OIL

- MIL-L-2104D, MIL-L-46167, 31.8 qt. (30L)

STEERING

- Power assisted, recirculating ball

SUSPENSION FRONT

- Parabolic-tapered leaf spring with hydraulic shock absorbers

SUSPENSION REAR

- 2.5 Ton LMTV parabolic-tapered leaf spring with hydraulic shock absorbers and stabilizer bar
- 5.0 Ton MTV tandem axles with parabolic-tapered leaf spring with hydraulic shock absorbers and stabilizer bar

TRANSPORTABILITY / DEPLOYABILITY

- Air transportable internally by C-130, C-141, C-17 and C-5A at GVW
- Externally transportable by CH-47 and CH-53 helicopters

TIRES

- 395/85R20XML All-terrain

TIRE INFLATION SYSTEM

- Central Tire Inflation System (CTIS) with cab-mounted electronic controls, operable while driving
- Highway, cross-country, air transport, sand/mud/snow and emergency modes

AXLES

- ArvinMeritor front, intermediate & rear axles
- Single reduction, amboid-gearing carrier
- Bevel wheel end reduction ratio, 2:1
- Overall gear ratio, 7.8:1
- Front axle steering angle, 35°

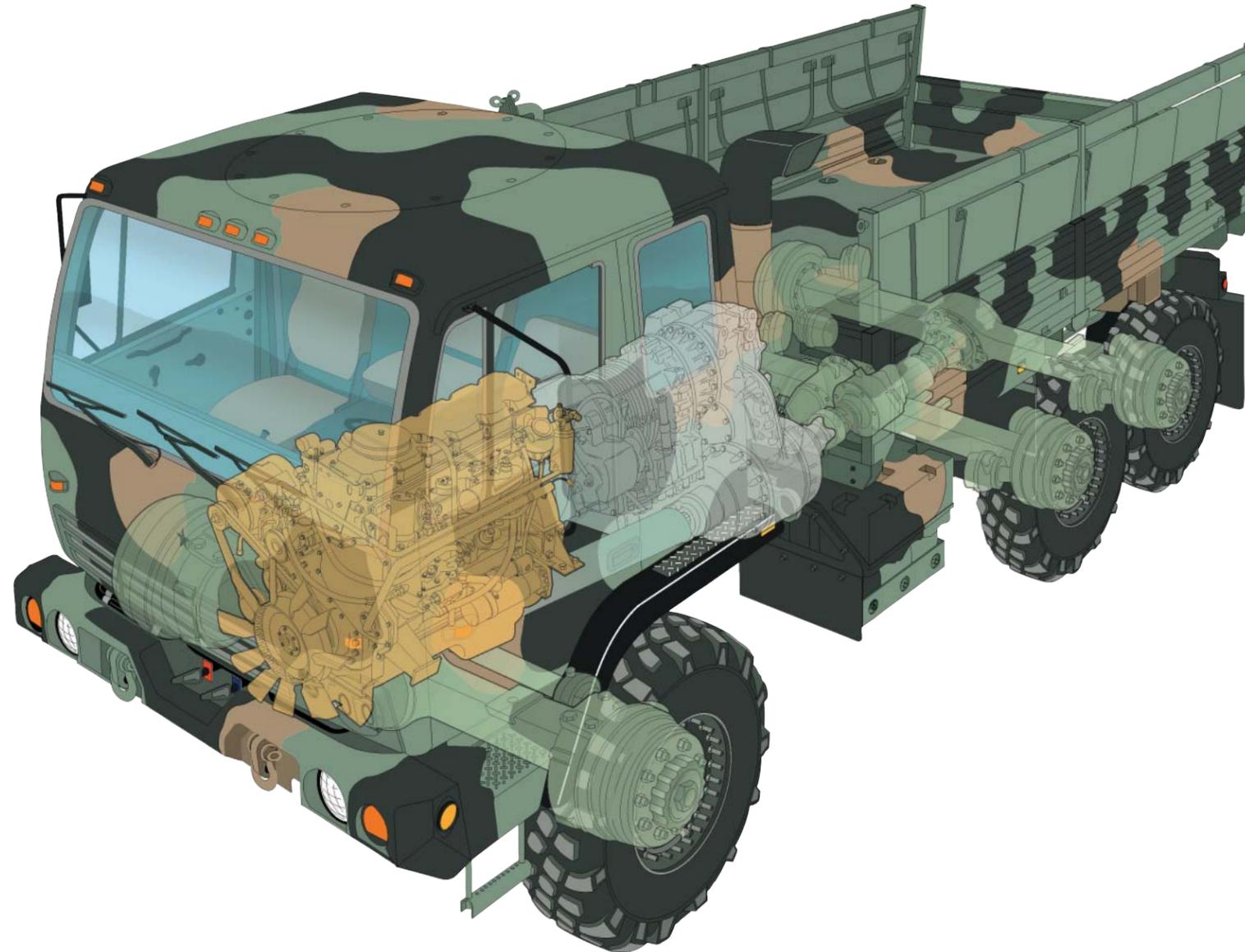
BRAKES

- Dual-circuit four channel air Anti-lock Braking System (ABS) with trailer ABS connectors for emergency towing

DIAGNOSTICS

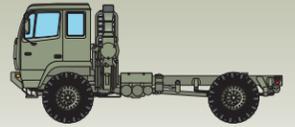
INTERACTIVE ELECTRONIC TECHNICAL MANUALS (IETM)

- FMTV A1 Class V IETM
- Intrusive diagnostics
- Diagnose all (4) unique Electronic Control Modules (ECM)
- Superior graphic clarity
- Integrated parts database



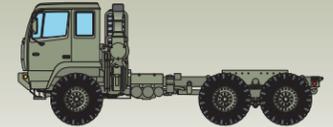
STANDARD 2.5 TON & 5.0 TON CHASSIS

2.5 TON



2.5 Ton, Chassis		
Curb Weight	13,274 lb	6,021 kg
Length	252 in	6,394 mm
Width	96 in	2,440 mm
Height	Oper. 112 in	2,845 mm
	Air Trans. 105.5 in	2,680 mm
Wheelbase	153.5 in	3,900 mm
Range (Min. at GVW)	400+ mi	645+ km
Approach Angle	40°	
Departure Angle	40°	
Payload	Consult Factory	
Towed Load	12,000 lb	5,443 kg
Model No.	M1080A1	

5.0 TON

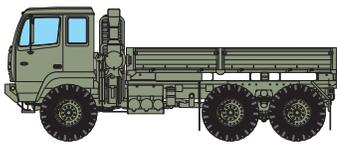


5.0 Ton, Chassis		
Curb Weight	16,791 lb	7,616 kg
Length	273 in	6,928 mm
Width	96 in	2,440 mm
Height	Oper. 112 in	2,845 mm
	Air Trans. 105.5 in	2,680 mm
Wheelbase	161 in	4,100 mm
Range (Min. at GVW)	300+ mi	483+ km
Approach Angle	40°	
Departure Angle	60°	
Payload	Consult Factory	
Towed Load	21,000 lb	9,526 kg
Model No.	M1092A1	

COMMON PARTS AND SYSTEMS SHARED BY THE 2.5/5.0 TON FLEET

- | | |
|--------------------------|-----------------------|
| • Engine Assembly | • Starter |
| • Alternator | • Fan & Fan Clutch |
| • Intake System | • Exhaust System |
| • Cooling System | • Fuel System |
| • Air Compressor | • CTIS Components |
| • Transmission | • Front Axle |
| • Front Suspension | • Steering System |
| • Vehicle Control Gauges | • Tires & Wheels |
| • Spare Tire | • Hoist Assembly |
| • Cab Assembly | • Self-Recovery Winch |
| • Air Tanks | (optional) |
| • Battery Box | – 2.5 Ton (11,000 lb) |
| • Air Dryer | – 5.0 Ton (15,500 lb) |

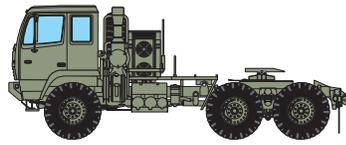
This is a partial list of components to all FMTV truck variants.



5.0 Ton, Standard Cargo

21,178 lb	9,606 kg
274 in	6,956 mm
96 in	2,440 mm
112 in	2,845 mm
105.5 in	2,680 mm
161 in	4,100 mm
300+ mi	483+ km
40°	
60°	
10,000 lb	4,536 kg
21,000 lb	9,526 kg
170 in	4,318 mm
91 in	2,314 mm

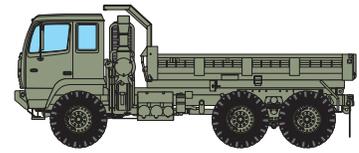
M1083 A1



5.0 Ton, Tractor

20,173 lb	9,151 kg
281 in	7,140 mm
96 in	2,440 mm
112 in	2,845 mm
105.5 in	2,680 mm
161 in	4,100 mm
300+ mi	483+ km
40°	
44°	
—	
See Note 1	
N/A	N/A
N/A	N/A

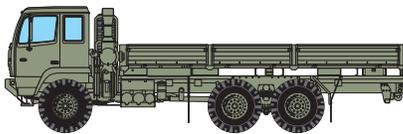
M1088 A1



5.0 Ton, Dump

24,650 lb	11,181 kg
286 in	7,260 mm
96 in	2,440 mm
119 in	3,030 mm
105.5 in	2,680 mm
161 in	4,100 mm
300+ mi	483+ km
40°	
44°	
10,000 lb	4,536 kg
21,000 lb	9,526 kg
N/A	N/A
N/A	N/A

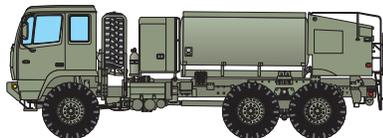
M1090 A1



5.0 Ton, Standard Long Cargo

22,678 lb	10,287 kg
349 in	8,861 mm
96 in	2,440 mm
112 in	2,845 mm
105.5 in	2,680 mm
177 in	4,500 mm
300+ mi	483+ km
40°	
20°	
10,000 lb	4,536 kg
21,000 lb	9,526 kg
244 in	6,204 mm
91 in	2,314 mm

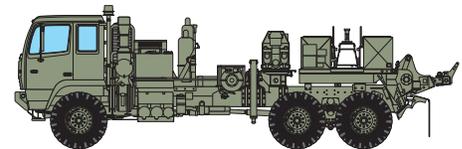
M1085 A1



5.0 Ton, Fuel Tanker

24,394 lb	11,065 kg
317 in	8,054 mm
96 in	2,440 mm
112 in	2,845 mm
105.5 in	2,680 mm
177 in	4,500 mm
300+ mi	483+ km
40°	
40°	
10,575 lb	4,797 kg
—	
N/A	N/A
N/A	N/A

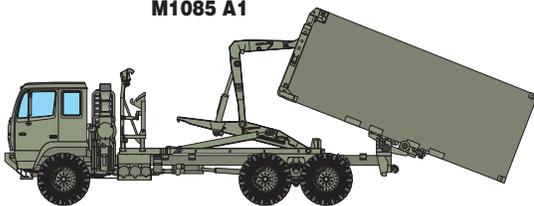
M1091 A1 (Note 4)



5.0 Ton, Wrecker

34,683 lb	15,732 kg
366 in	9,305 mm
96 in	2,440 mm
112 in	2,845 mm
105.5 in	2,680 mm
209 in	5,300 mm
300+ mi	483+ km
40°	
40°	
36,000 lb	16,330 kg
—	
N/A	N/A
N/A	N/A

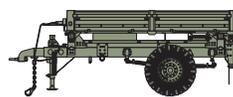
M1089 A1



8 Metric Ton, Load Handling System

24,830 lb	11,263 kg
361.6 in	9,186 mm
96 in	2,438 mm
156.5 in (max.)	3,975 mm
105.5 in	2,679 mm
209 in	5,300 mm
300+ mi	483+ km
40°	
23°	
17,640 lb	8 metric tons
26,840 lb	12,176 kg
N/A	N/A
N/A	N/A

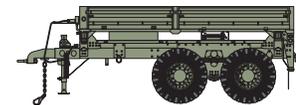
See Notes 4 and 5



2.5 Ton, Trailer

6,860 lb	3,112 kg
209.5 in	5,321 mm
96 in	2,440 mm
78 in	1,979 mm
78 in	1,979 mm
N/A	N/A
N/A	N/A
N/A	N/A
5,000 lb	2,268 kg
—	
149 in	3,784 mm
91 in	2,314 mm

M1082

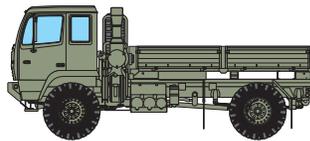


5.0 Ton, Trailer

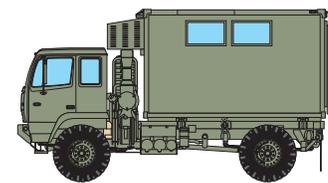
9,520 lb	4,318 kg
230.5 in	5,858 mm
96 in	2,440 mm
82.2 in	2,087 mm
82.2 in	2,087 mm
N/A	N/A
N/A	N/A
N/A	N/A
10,000 lb	4,536 kg
—	
170 in	4,318 mm
91 in	2,314 mm

M1095

CONFIGURATIONS



2.5 Ton, Standard Cargo



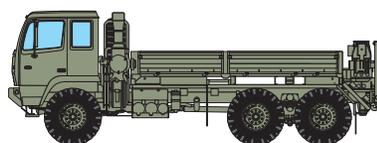
2.5 Ton, Van

Curb Weight	17,589 lb	7,978 kg	19,567 lb	8,875 kg
Length	253 in	6,420 mm	261 in	6,640 mm
Width	96 in	2,440 mm	96 in	2,440 mm
Height Oper.	112 in	2,845 mm	139 in	3,529 mm
Air Trans.	105.5 in	2,680 mm	105.5 in	2,680 mm
Wheelbase	153.5 in	3,900 mm	153.5 in	3,900 mm
Range (Min. at GVW)	400+ mi	645+ km	400+ mi	645+ km
Approach Angle	40°		40°	
Departure Angle	40°		40°	
Payload	5,000 lb	2,268 kg	5,000 lb	2,268 kg
Towed Load	12,000 lb	5,443 kg	12,000 lb	5,443 kg
Inside Cargo Bed	Length	149 in	3,784 mm	N/A
	Width	91 in	2,314 mm	N/A

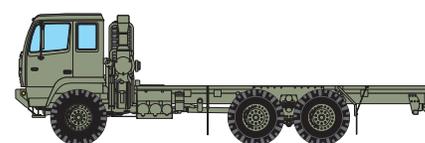
Model No.

M1078 A1

M1079 A1



5.0 Ton, Standard Cargo With MHE



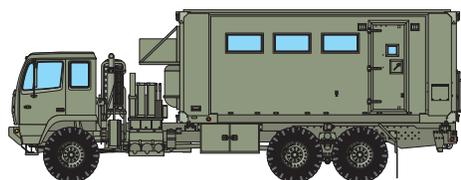
5.0 Ton, Long Chassis

Curb Weight	24,810 lb	11,254 kg	17,336 lb	7,863 kg
Length	306 in	7,780 mm	349 in	8,860 mm
Width	96 in	2,440 mm	96 in	2,440 mm
Height Oper.	112 in	2,845 mm	112 in	2,845 mm
Air Trans.	105.5 in	2,680 mm	105.5 in	2,680 mm
Wheelbase	177 in	4,500 mm	177 in	4,500 mm
Range (Min. at GVW)	300+ mi	483+ km	300+ mi	483+ km
Approach Angle	40°		40°	
Departure Angle	36°		20°	
Payload	10,000 lb	4,536 kg	See Note 2	
Towed Load	21,000 lb	9,526 kg	21,000 lb	9,526 kg
Inside Cargo Bed	Length	170 in	4,318 mm	N/A
	Width	91 in	2,314 mm	N/A

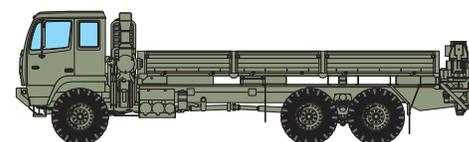
Model No.

M1084 A1

M1096 A1



5.0 Ton, Expansive Van



5.0 Ton, Long Cargo With MHE

Curb Weight	37,276 lb	16,908 kg	25,915 lb	11,755 kg
Length	391 in	9,937 mm	381 in	9,683 mm
Width	96 in	2,440 mm	96 in	2,440 mm
Height Oper.	147 in	3,730 mm	112 in	2,845 mm
Air Trans.	105.5 in	2,680 mm	105.5 in	2,680 mm
Wheelbase	216.5 in	5,500 mm	216.5 in	5,500 mm
Range (Min. at GVW)	300+ mi	483+ km	300+ mi	483+ km
Approach Angle	40°		40°	
Departure Angle	17°		21°	
Payload	5,000 lb	2,268 kg	10,000 lb	4,536 kg
Towed Load	21,000 lb	9,526 kg	21,000 lb	9,526 kg
Inside Cargo Bed	Length	N/A	244 in	6,204 mm
	Width	N/A	91 in	2,314 mm

Model No.

M1087 A1 (Note 4)

M1086 A1

Notes: 1) Towed load - 60,000 lb (27,216 kg) Fifth Wheel Vehicle Load (Payload) - 25,000 lb (11,340 kg). 2) Payload - Consult Factory. 3) Payload (Lift & Tow Stinger) - 11,000 lb (4,990 kg).



The Family of Medium Tactical Vehicles (FMTV) is the backbone for tactical maneuvers and logistics from platoon through division level. **Stewart & Stevenson**, manufacturer of the FMTV A1, is proud to support the United States Army. We are committed to providing quality products and service to U.S. forces worldwide.



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