
MACK DEFENSE

M917A3 HEAVY DUMP TRUCK



Designed to meet a demanding payload.

Strong and versatile, the Mack Defense M917A3 Heavy Dump Truck is a commercially-based Mack® Granite® dump truck, engineered to be the best-in-class tactical and logistical vehicle solution from the only company that can deliver these unparalleled capabilities to the United States Army. Mack Defense assembled a world class team with one purpose in mind — to provide a heavy dump truck that meets all military requirements.

MP®8 ENGINE

Saving up to 2.5% in fuel and shedding 88 lbs weight, Mack's workhorse MP®8 offers up to 520 HP and 1,860 lb-ft of torque and the Euro 3 version is also available at 520 HP and 1,844 lb-ft of torque.

6X6 OR 8X8 AXLE AND SUSPENSION CONFIGURATIONS

The Meritor® axles coupled with the Mack front parabolic spring and the Hendrickson rear Primaxx® suspension provides unparalleled ride quality while fully loaded or empty.

STANDARD OR ARMORED CAB

The cab design and driver environment are built around the way the work gets done – keeping soldiers safe and focused on any mission.

AWD COMPONENTS

The HDT comes standard with all-wheel drive in either the tandem or tridem rear axle versions. Mack Defense engineers added increased ride height suspension to provide the military with a heavy dump truck to meet their demanding payload and mobility requirements.

MACK DEFENSE CONTRACTS:

Defense Logistics Agency (DLA) #SPE8EC-18-D-0015
GSA AutoChoice #47QMCA23D000D (NA009) - Mack & Volvo
GSA Multiple Award Schedule #47QMCA20D000S
PSPC (Canada) HVY/Med Truck #E60HP-16TRUK
U.S. ARMY CONTRACTING COMMAND - M917A3 - W56HZV-18-D-0042
M917A3 Heavy Dump Truck – Non-Armored – NSN 2530-01-552-2924
M917A4 Heavy Dump Truck – Armored – NSN 2320-01-674-0199



Always ready to defend.



ELECTRICAL OPTIONS

Collision Warning System; Military Lighting; NATO Slave Receptacle; 12/24V Electrical System; 12V SAE and 24V NATO Trailer Connections



LIFTING, TIE-DOWN, AND TOWING

Front bumper assembly - multipurpose HDT design with lifting, tie down, towing features and brush guard; Rear tie down and towing; Side lifting loop (attached to frame); Single point air lift ability; Fully tested transportability solution meeting all MIL standards and requirements



CARC COATINGS

Powder coating is designed to meet the requirements of the U.S. Department of Defense's Chemical Agent Resistant Coatings (CARC) process specifications

Mission Ready.



27 Ton Dump Body

Crysteel engineers developed an integrated touchscreen control module, which provides the operator key safety and functionality information at their fingertips. From this integrated hub, the driver is able to control the lift cylinder, tailgate, tarp, thermostatic body heater system, and material control system. The inclinometer and the on-board weigh scale are also displayed.



STANDARD SWING GATE OR OPTIONAL MATERIAL CONTROL SYSTEM (MCS) TAILGATE ASSEMBLY

- ▶ 17' Long Crysteel Select Dump Body
- ▶ 18-22 yard capacity
- ▶ Front Material 3/16" AR450
- ▶ Side Material 3/16" AR450
- ▶ Tailgate Material 3/16" AR450
- ▶ Floor Material 1/4" AR450
- ▶ Heated Tubular Longsills and side rubrails
- ▶ 50" Cab protector



**CHROME PLATED
T74167 7" BARREL**

4 STAGES

**167" STROKE TO
ACHIEVE 50°
DUMP ANGLE**

Mack Defense M917A3 HDT model features:



LED LIGHTS

All exterior lights are LED, which are 66% brighter, last longer, use less energy and provide better visibility, versus incandescent lighting.



SPARE TIRE CARRIER

Mounted vertically between back of cab and dump body. Assembly and gear drive mechanism are specially designed to meet military specified tire change time requirements.



INTERIOR COMFORT

Designed with the comfort drivers need and the durability the road demands. Whether the haul is off-road or cross-country, HDT's new interiors are purpose-built to keep drivers safe, comfortable and driving strong.

CUSTOMIZED OPTIONS AVAILABLE TO MEET MISSION REQUIREMENTS

WEIGHTS/DIMENSIONS

GVWR: 94,500 lbs

Wheel Configuration: 8X8

Frame: 300mm X 90mm X 11.1mm with steel reinforcement frame

Wheelbase: 243"

Platform: 230"

Overhang: 75"

AXLES/SUSPENSION

Front Axle: Meritor® MX-810

Front Suspension: Taperleaf spring suspension (parabolic), axle-forward position

Rear Axle: Meritor® ProTec™ 5000 Series Beam Axles

Carrier Ratio: 6.14

Rear Suspension: PRIMAAAX® EX high stability air suspension

DRIVELINE/TRANSMISSION

Driveline: Meritor® Permalube RPL

Transmission: Allison® 4500SP Gen5 with prognostics, 6-speed

Brakes: Meritor® EX+ air disc brakes front, Meritor Drum 16.5"x7" Q+ drums rear

ABS System: 6S/6M system

Front/rear Tires: 445/65R22.5 L Michelin® XZY3

Transfer Case: Meritor MTC-3220FV (TC-142)

CAB/CHASSIS

Driver Seat (non-armored): Mack-air, high back, 1 chamber air lumbar

Passenger Seat (non-armored): Mack-air, high back, 1 chamber air lumbar

Mirrors (both sides): Aero black, heated/motorized, wide angle, w/o lamps

Spare Tire: Spare tire/carrier between dump body and cab

Fuel Capacity: 93 gal (350 L), 26" steel d-shape

POWERTRAIN

Type: Mack 13 Liter, MP8 440

Max Power: 440 HP

Max Torque: 1660 lb-ft

Engine Brake: Driver Controllable Variable Setting, plus exhaust pressure governor (for HE/Export)

Fan Drive: Electronic modulating viscous fan drive

Air System: Meritor®/Wabco 636 (37.4 cfm) w/o clutch

Starter: 24 Volt

Alternator: High output, 24V alternator



RIDE QUALITY - HALF ROUNDS



MOBILITY TESTING



SPEED, STOP AND START 30% GRADE



16" AND 20" VERTICAL STEP

Cornerstone™ chassis off road superiority provides flexibility to transform into multiple mission capable platforms.

The adaptability provides the soldiers a diverse portfolio of tactical and logistical support equipment. The chassis is built strong and when combined with a crane, can offer an all-terrain solution capable of 30 to 60 tons. Making it the perfect tool for light, medium, and heavy lifts.

Chassis Testing

Mack Defense has plenty riding on our chassis. Components were tested for fatigue; the rails and crossmembers were stressed and relentlessly checked for endurance.

Frame Rail

The 300 mm constant frame rail height and high strength steel alloy in conjunction with a full length channel liner provide for optimal strength and payload capabilities. The frame system includes a full channel liner in each rail that runs front to rear within the HDT, providing optimal strength and payload capabilities.

Engine Mounts/Cab Isolators

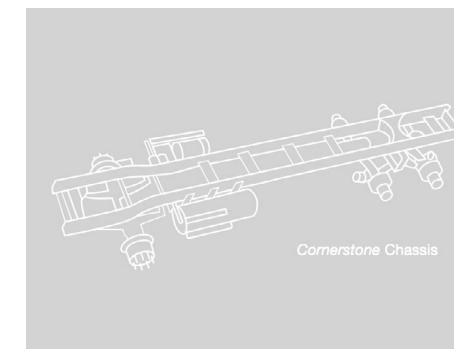
Engine mounts and cab isolators reduce noise and vibration, which decreases driver fatigue and improves productivity.

Wheel Cuts

The best All Wheel Drive truck maneuverability ever from Mack Defense. The Cornerstone chassis design allows increased wheel cuts for improved handling around the jobsite.

Crossmembers

Developed by Mack design engineers and harshly tested by performance engineers – superior strength and stiffness is achieved through the use of eight crossmembers located along the frame rails where loads are imposed.



Cornerstone Chassis



WRECKER



TROOP CARRIER



TANKER



LINE HAUL



CRANE

Tested, tried, and true.

The M917A3 HDT has passed its ruggedness challenge at the Nevada Automotive Testing Center. Passing these tests was especially important for the M917A3 and proved its design is ready to tackle the most rugged terrain. Clearly, the M917A3 has proven it has the capability to serve the United States Army.

Vertical step	✓
Static stability on tilt table	✓
Wall-to-wall turning circle	✓
Trench crossing	✓
Speed on 0% grade	✓

Speed, stop and start 30% grade	✓
Steady state turning	✓
Ride quality - half rounds	✓
Side slope	✓
Mobility testing	✓

Environmental	✓
Fording - 20 inches	✓
Standard is -25°F to 120°F, can go to -40°F to 120°F with addition of cold weather kit	✓

APPLICATIONS INCLUDE: WRECKER, TROOP CARRIER, TANKER, LINE HAUL AND CRANE

Mack Defense demands total performance.

Meritor® Delivers.

More than a half century ago, Meritor began supplying drivetrain components to military fleets. Today, they're one of the world's largest independent drivetrain producers for tactical-wheeled vehicles. Meritor takes great pride in supplying complete integrated systems to meet the challenges faced by demanding military applications in the most difficult terrains worldwide. With decades of experience engineering tactical drivetrain components, Meritor's ProTec™ axles, transfer case and drivelines offer high performance, efficiency and reliability for the Mack Defense M917A3 Heavy Dump Truck.



MERITOR PROTEC SERIES 50 RIGID TRIDEM AXLE

MERITOR MTC-3220FV (TC-142) TRANSFER CASE

MERITOR PERMALUBE RPL SERIES DRIVELINE

MERITOR MX-810 FRONT DRIVE STEER AXLE

MERITOR PROTEC SERIES 50 RIGID TRIDEM AXLE

- ▶ Gross axle weight rating (GAWR) of 30,000 lbs per axle
- ▶ 3.46:1 Planetary geared wheel-end
- ▶ Standard Driver-Controlled Differential Lock (DCDL) or automatic locking options
- ▶ Central Tire Inflation System - (CTIS) and ABS-ready
- ▶ Air disc brake or drum brake options

MERITOR MX-810 FRONT DRIVE STEER AXLE

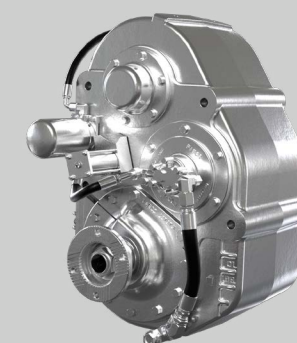
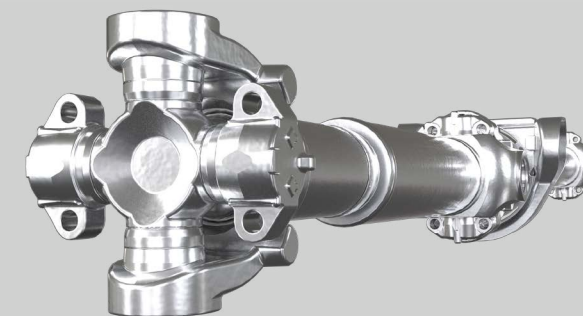
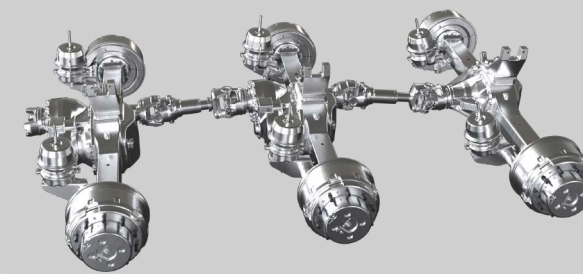
- ▶ Gross axle weight rating (GAWR) of 24,000 lbs
- ▶ Standard Driver-Controlled Differential Lock (DCDL) or automatic locking options
- ▶ Meritor bevel gear wheel-end reduction axles exceed the demanding requirements of the current Family of Medium Tactical Vehicles (FMTV)
- ▶ 35°–38° turn angle for excellent maneuverability
- ▶ EX+ air disc brakes standard or optional drum brakes
- ▶ ABS-ready wheel ends with installed tooth wheel and sensor

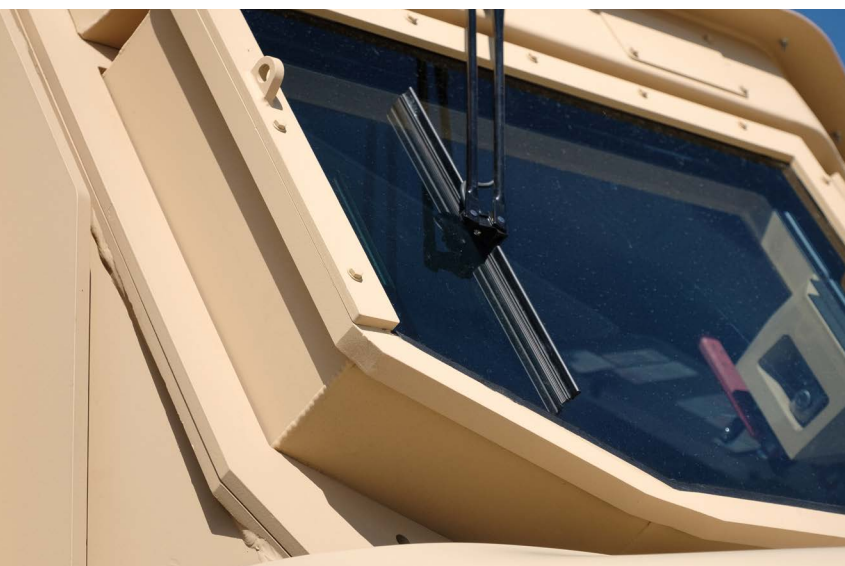
MERITOR PERMALUBE™ RPL SERIES DRIVELINE

- ▶ Permanently lubricated and sealed for life – reduced maintenance and operating costs
- ▶ Extended U-joint life to handle difficult terrains
- ▶ Triple lip seals provide protection against contaminants
- ▶ Nylon thrust washers eliminate metal-to-metal contact to prevent wear
- ▶ Four-bolt design for easy installation and service
- ▶ E-coated steel guard secures and protects the slip seal against contaminants and damage

MERITOR MTC-3220FV (TC-142) TRANSFER CASE

- ▶ Speed – 3,000 RPM
- ▶ High Input Torque – 20,000 lb-ft
- ▶ Ratios – 1:1 and 2.23:1
- ▶ Combined splash and pressurized lubrication system
- ▶ Optional Full Power PTO, Integral Air Range Shift
- ▶ High-torque helical high range gears with tapered roller bearings





Parts built to last.

We've built our name around Mack Defense Parts. These parts are engineered to provide dependability and peak performance. They are selected because they meet Mack Defense's manufacturing tolerances and exacting specifications. That's how we built our legendary reputation for quality. And it's why we offer one of the industry's best guarantees against parts failure. No matter where you travel, you can depend on the legendary Mack Defense parts and services that you will always find at your Mack Defense dealer.

PLANTS IN AMERICAS

- Lehigh Valley, PA, United States**
 - Truck assembly, painting and KD packing
- Middletown, PA, United States**
 - Remanufacturing
- Charlotte, NC, United States**
 - Remanufacturing
- Hagerstown, MD, United States**
 - Engine & transmission assembly, rear axle machining and assembly
- New River Valley, VA, United States**
 - Cab assembly, painting and truck assembly
- Salem, VA, United States**
 - Medium duty cab and truck assembly and manufacturing
- Curitiba, Brazil**
 - Cab assembly and painting, truck assembly and bus chassis
 - Engine manufacturing, transmission assembly and remanufacturing
- Las Tejerias, Venezuela**
 - KD truck assembly and customer adaptation of trucks



- Cab and vehicle assembly, CBU and KD
- Powertrain production

GTO SERVICE MARKET LOGISTICS



Armor Scalable Solutions.

Whatever the mission, stateside or beyond, this unique armored body system is designed to withstand the most challenging conditions. Combat patrols to rescue efforts, these soldiers are ready to dominate the roadways.

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Weights, dimensions and features are given for reference and may be modified according to the choice of certain options. Mack Defense, LLC, reserves the right to modify the above specifications without prior notification.

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