TECHNICAL MANUAL
OPERATOR’S MANUAL FOR
THE M1083A1 SERIES 5 TON, 6 X 6
MEDIUM TACTICAL VEHICLES (MTV)
VOLUME NO. 1 OF 2

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HEADQUARTERS, DEPARTMENTS OF THE ARMY AND AIR FORCE

JANUARY 2005
WARNING SUMMARY

WARNING

CARBON MONOXIDE (EXHAUST GAS) CAN KILL YOU.

Carbon monoxide is a colorless, odorless, DEADLY POISONOUS gas and when breathed deprives body of oxygen and causes SUFFOCATION. Breathing air with carbon monoxide produces symptoms of headache, dizziness, loss of muscular control, a sleepy feeling, and coma. Permanent BRAIN DAMAGE or DEATH can result from severe exposure.

The following precautions MUST be followed to ensure personnel are safe whenever any type of personnel heater or engine is operated for any purpose. Failure to comply may result in serious injury or death to personnel.

DO NOT operate heater or engine in an enclosed area without adequate ventilation.

DO NOT drive any vehicle with inspection plates, cover plates, or engine compartment covers removed unless necessary for maintenance purposes.

NEVER sleep in a vehicle when the heater is operating or the engine is idling.

BE ALERT at all times during vehicle operation for exhaust odors and exposure symptoms. If either is present, IMMEDIATELY VENTILATE personnel compartments. Treatment of affected personnel shall be: expose to fresh air; keep warm; DO NOT PERMIT PHYSICAL EXERCISE. If necessary, give cardiopulmonary resuscitation, as described in FM 21-11, and get immediate medical attention. Failure to comply may result in serious injury or death to personnel.

THE BEST DEFENSE AGAINST CARBON MONOXIDE POISONING IS GOOD VENTILATION.

WARNING

Do not touch extremely cold metal (below -26° F (-32° C)). Bare skin may freeze to cold metal. Failure to comply may result in injury to personnel.
WARNING SUMMARY - Continued

WARNING

CARBON MONOXIDE (EXHAUST GAS) CAN KILL YOU.

DO NOT operate troop seat heater or engine in an enclosed area without adequate ventilation. NEVER sleep in a vehicle when troop seat heater is operating or the engine is idling. Failure to comply may result in serious injury or death to personnel.

WARNING

Nuclear, Biological, or Chemical (NBC) contaminated air filters must be handled and disposed of only by authorized and trained personnel. The unit commander or senior officer in charge of maintenance personnel must ensure that prescribed protective clothing (FM 3-4) is used, and prescribed safety measures and decontamination procedures (FM 3-5 and TB 700-4) are followed. The unit standard operating procedures are responsible for final disposal of contaminated air filters. Failure to comply may result in serious injury or death to personnel.

WARNING

Adhesives, solvents, and sealing compounds can burn easily, can give off harmful vapors, and are harmful to skin and clothing. Keep away from open fire and use in well-ventilated area. If adhesive, solvent, or sealing compound gets on skin or clothing, wash immediately with soap and water. Failure to comply may result in serious injury or death to personnel.

WARNING

Pressure in radiator overflow tank must be released before removing radiator cap. Failure to comply may result in injury to personnel.

WARNING

Never raise cab while occupied or when parked uphill on a steep grade. Failure to comply may result in serious injury or death to personnel.
WARNING SUMMARY - Continued

WARNING
Both suspension compression plates must be installed on axle studs. Failure to comply may result in serious injury or death to personnel.

WARNING
Cab hydraulic latch must be locked before driving vehicle. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING
Do not pull seat belt more than 1 in. (2.54 cm) away from shoulder. Seat belt will not be effective if accident occurs. Failure to comply may result in serious injury or death to personnel.

WARNING
Vehicle must be secure. Chock wheels when stopped on incline. Vehicle may roll downhill. Failure to comply may result in serious injury or death to personnel.

WARNING
Ensure vehicle is parked on level ground before changing flat tire. Vehicle may roll. Failure to comply may result in serious injury or death to personnel.

WARNING
Wear arctic clothing when cab temperatures fall and remain below 30° F (-1° C). Cold stress preventative measures in FM 31-70 should be applied when vehicle cab temperatures fall and remain below 30° F (-1° C). Failure to comply may result in serious injury or death to personnel.

WARNING
Engine compartment and accessories may be extremely hot when engine is running or has been running recently. Use caution around engine when cab is raised. Failure to comply may result in injury to personnel.
WARNING SUMMARY - Continued

WARNING

Engine compartment contains a partially exposed fan blade. Use extreme caution around front of engine. Failure to comply may result in injury to personnel.

WARNING

Cargo cover weighs approximately 60 lbs (27 kgs). Long Wheel Base (LWB) cargo cover weighs approximately 80 lbs (36 kgs). Arctic cargo cover weighs approximately 100 lbs (45 kgs). An assistant is required to lift cargo cover. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Ensure engine oil is cool before performing any maintenance. Failure to comply may result in serious injury to personnel.

WARNING

Ensure safety strap is fastened across back and front of vehicle before transporting troops. Failure to comply may result in serious injury or death to personnel.

WARNING

Ensure both doors are securely closed before cab is raised. Do not allow personnel near cab when cab is being raised. Cab doors could open. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Ensure both doors are securely closed before cab is lowered. Do not allow personnel near cab when cab is being lowered. Cab doors could open. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Data and instruction plates given below must be followed at all times to safely operate vehicle. Failure to comply may result in injury to personnel or damage to equipment.
WARNING SUMMARY - Continued

WARNING

Extreme care should be taken when removing radiator cap if WATER TEMP gage reads above 180° F (82° C). Contact with steam or hot coolant under pressure may result. Failure to comply may result in injury to personnel.

WARNING

Tire weighs approximately 350 lbs (159 kgs). If treads of tire catch on tool box during lowering, raise tire and pull tire away from tool box and continue lowering. Use extreme care when lowering or handling tire. Failure to comply may result in injury to personnel.

WARNING

Tire weighs approximately 350 lbs (159 kgs). Use extreme care when handling tire. Failure to comply may result in injury to personnel.

WARNING

Place hydraulic jack on flat surface. Do not allow personnel under vehicle when jacking. Failure to comply may result in serious injury or death to personnel.

WARNING

Handle tire with care. Tire may have exposed broken metal cords or sharp debris in it. Failure to comply may result in injury to personnel.

WARNING

All cleaning procedures must be accomplished in well-ventilated areas. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Use caution when inflating tire. Over inflation may cause tire to blow apart. Failure to comply may result in serious injury or death to personnel or damage to equipment.
WARNING

Wheels must be chocked and service brakes applied before parking brake is released. Vehicle may roll if wheels are not chocked. Failure to comply may result in serious injury or death to personnel.

WARNING

Protective gloves, clothing, and/or respiratory equipment must be worn whenever caustic, toxic, or flammable cleaning solutions are used. Failure to comply may result in injury to personnel.

WARNING

A fire extinguisher must be available and ready during all cleaning operations involving solvents. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Manifold operator must stand near hydraulic manifold and observe spare tire. Guide person must stand to the right front of vehicle, well clear of spare tire. Failure to comply may result in serious injury or death to personnel.

WARNING

Ensure tires have correct tire pressure for terrain conditions and driving speed (refer to Table 1 Cold Tire Inflation Pressure and Restrictions). Failure to comply may result in serious injury or death to personnel.

WARNING

Dry Cleaning Solvent (P-D-680) is TOXIC and flammable. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes, and do not breath vapors. Keep away from heat or flame. Never smoke when using Dry Cleaning Solvent; the flashpoint for Type I Dry Cleaning Solvent is 100° F (38° C) and for Type II is 138° F (50° C). Failure to comply may result in serious injury or death to personnel.
WARNING SUMMARY - Continued

WARNING

If personnel become dizzy while using Dry Cleaning Solvent, immediately get fresh air and medical help. If Dry Cleaning Solvent contacts skin or clothes, flush with cold water. If Dry Cleaning Solvent contacts eyes, immediately flush eyes with water and get medical attention. Failure to comply may result in serious injury or death to personnel.

WARNING

Hydraulic fluid (MIL-PRF-5606H) is TOXIC. Wear protective goggles and gloves; use only in well-ventilated area; avoid contact with skin, eyes, and clothes. Skin and clothing that come in contact with hydraulic fluid should be washed immediately. Saturated clothing should be removed immediately. Failure to comply may result in injury to personnel.

WARNING

Lead-acid battery gases can explode. Do not smoke, have open flames, or make sparks around a battery, especially if caps are off. Battery may give off gas which can explode. Failure to comply may result in serious injury or death to personnel.

WARNING

Do not back up vehicle without an assistant. Operator has limited vision while backing vehicle. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Do not smoke, have open flame, or make sparks near batteries when slave starting vehicle. Batteries can explode. Failure to comply may result in serious injury or death to personnel.

WARNING

Remove rings, bracelets, wristwatches, neck chains, and any other jewelry before working around vehicle. Jewelry may catch on equipment or may short across an electrical circuit or battery terminal. Failure to comply may result in serious injury or death to personnel.
WARNING SUMMARY - Continued

WARNING

Ensure master power switch on both vehicles are turned to off before connecting NATO power cable. Vehicles must not touch each other. Failure to comply may result in serious injury or death to personnel.

WARNING

Diesel fuel is flammable. Do not fill fuel tank with engine running, while smoking, or when near an open flame. Never overfill fuel tank or spill fuel. If fuel is spilled, clean it up immediately. Failure to comply may result in serious injury or death to personnel.

WARNING

Do not perform fuel/water separator checks, inspections, or draining while smoking, or when near fire or sparks. Fuel could ignite. Failure to comply may result in serious injury or death to personnel.

WARNING

Gasoline is highly flammable. Do not operate swingfire heater while filling gas tank. Do not smoke or have open fires within 25 ft (7.6 m) of area while filling gas tank. Failure to comply may result in serious injury or death to personnel.

WARNING

Allow swingfire heater to cool down before draining gasoline from swingfire heater gas tank. Failure to comply may result in serious injury or death to personnel.

WARNING

Exhaust fumes from swingfire heater are poisonous. Do not operate swingfire heater in a closed room. Ensure adequate ventilation is available. If personnel become dizzy, seek immediate medical attention. Failure to comply may result in serious injury or death to personnel.
WARNING SUMMARY - Continued

WARNING

Diesel fuel or gasoline must never be used for cleaning. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Operating in water or mud causes brake linings to get wet and can impair vehicle braking. Dry brakes by driving vehicle about 500 ft (153 m) while applying service brakes often. If adequate braking is not restored by drying brakes, notify Field Maintenance. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Rear axle service brakes will not operate if REAR BRAKE AIR pressure gage reads below 75 psi (517 kPa). Rear axle braking will be provided by rear spring brakes for a limited time. Allow greater stopping distance. Discontinue vehicle operation as soon as possible. Failure to comply may result in serious injury or death to personnel.

WARNING

Front axle service brakes will not operate if FRONT BRAKE AIR pressure gage reads below 75 psi (517 kPa). Allow greater stopping distance. Discontinue vehicle operation as soon as possible. Failure to comply may result in serious injury or death to personnel.

WARNING

Notify Field Maintenance that lugnuts need to be tightened to 415-475 lb-ft (563-644 N·m) as soon as possible. Wheel may come loose if lugnuts are not tightened to proper torque. Failure to comply may result in serious injury or death to personnel.

WARNING

Do not exceed maximum vehicle speed and grade limitations during normal operations. Do not exceed maximum approach or departure angles or ford water greater than maximum depth. Failure to comply may result in serious injury or death to personnel or damage to equipment.
WARNING SUMMARY - Continued

WARNING

Vehicle speed should be reduced to 5-10 mph (8-16 km/h) during blackout conditions. Failure to comply may result in serious injury or death to personnel.

WARNING

Bridges along your route may be marked with a class number. The bridge class number shows the safe capacity of the bridge. If the bridge class number on your vehicle is equal to or less than the bridge class number, the bridge will hold your vehicle. If the bridge class number on your vehicle is greater than the bridge class number, DO NOT CROSS BRIDGE. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Do not press brake pedal hard three or four times in a row. Air supply will be used up and service brakes will not work until air pressure builds up again. Do not operate vehicle until FRONT and REAR BRAKE AIR pressure reaches at least 100 psi (690 kPa). Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Transmission incorporates a hold feature to prohibit upshifting above selected gear during normal driving. However, during downhill operation, transmission may upshift above selected gear. On downgrades, vehicle speed may need to be restricted by using service brakes. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Avoid driving diagonally across a hill. Vehicle could roll over. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Do not straddle or drive on sides of sand mounds. Loose sand will not support vehicle on steep slopes. Avoid driving diagonally across a hill. Vehicle may roll over. Failure to comply may result in serious injury or death to personnel or damage to equipment.
WARNING SUMMARY - Continued

WARNING

Towing vehicle and disabled vehicle must have parking brakes applied before connecting/disconnecting towbar. Vehicles may roll into each other. Failure to comply may result in serious injury or death to personnel.

WARNING

Towbar weighs approximately 100 lbs (45 kgs) and requires two or more personnel to carry. Failure to comply may result in injury to personnel.

WARNING

Do not place hands near pintle hook when connecting/disconnecting towbar from pintle hook. Failure to comply may result in injury to personnel.

WARNING

Personnel must not occupy towed vehicle during towing operation. Towed vehicle may become disconnected while being towed. Failure to comply may result in serious injury or death to personnel.

WARNING

Ground guide is required to guide vehicle backing up. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Wear heavy leather-palmed work gloves when handling cable. Cables can become frayed or contain broken wires. Never let moving cable slide through hands, even when wearing gloves. Failure to comply may result in injury to personnel.

WARNING

Ensure no one is behind tailgate before dump body is raised. Failure to comply may result in serious injury or death to personnel.

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WARNING

Set up stifflegs if load is swung around rear of vehicle. Vehicle could turn over if not supported. Failure to comply may result in serious injury or death to personnel.

WARNING

Underlift assembly must be operated with WRECKER REMOTE CONTROL if Operator is not able to keep underlift assembly and disabled vehicle in sight at all times during operation. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Stinger camlock must be locked into first rectangular hole on stinger before underlift assembly is folded into its stowed position. Crossbar could shift suddenly. Failure to comply may result in injury to personnel.

WARNING

Goggles must be worn when operating WRECKER CONTROL PANEL. Blowing dust and debris may become airborne while engine is running. Failure to comply may result in injury to personnel.

WARNING

Ensure there are at least five wraps of cable on hoist drum at all times. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Do not exceed rated payload of vehicle. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Sandshoe weighs approximately 70 lbs (32 kgs). Use the aid of an assistant to lower/raise sandshoe. Failure to comply may result in injury to personnel or damage to equipment.
WARNING

Keep hands and feet clear of stifflegs during operation. Failure to comply may result in injury to personnel.

WARNING

Do not raise vehicle tires off ground with stifflegs. Vehicle may roll over. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Stifflegs must be positioned so that vehicle is level from side to side. Vehicle may roll over. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Slowly take out slack in cable before recovering equipment. Failure to comply may result in serious injury or death to personnel.

WARNING

Use extreme caution when disconnecting cable. Cable may spin rapidly to the left approximately 1 1/2 turns when disconnected. Failure to comply may result in serious injury or death to personnel.

WARNING

Keep all personnel clear of area when tension is on cable. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

M1089A1 and disabled vehicle must have parking brakes applied before connecting/disconnecting towbar. Failure to comply may cause vehicles to roll into each other and may result in serious injury or death to personnel or damage to equipment.
WARNING

M1089A1 should not be operated at speeds over 15 mph (24 km/h) when towing, except on paved roads when Operator determines terrain conditions allow safe operation. The following are maximum speeds for safe operation.

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<td>off road</td>
<td>15 mph (24 km/h)</td>
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Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Never stand against or between tractor tires, stand between tractor and trailer, allow anyone behind trailer during movement, or allow anyone to stand on opposite side of Operator during fifth wheel release. Always chock trailer tires before coupling, connect trailer brakes air supply and set trailer brakes before sliding fifth wheel. Use release tool when releasing and engaging slide latch lever. Failure to comply may result in serious injury or death to personnel.

WARNING

Use release tool with hook side up when closing slide latch release lever. Failure to comply may result in injury to personnel.

WARNING

Underlift assembly must be operated with WRECKER REMOTE CONTROL if Operator is not able to keep underlift assembly and disabled vehicle in sight at all times during operation. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Keep personnel clear of underlift assembly and disabled vehicle when raising. Disabled vehicle could fall suddenly. Failure to comply may result in serious injury or death to personnel.
WARNING SUMMARY - Continued

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**WARNING**

M1089A1 hydraulic hoses are under 3,000 pounds pressure and must be handled carefully to prevent damage or personal injury. Failure to comply may result in serious injury or death to personnel.

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**WARNING**

MODE SELECTOR SWITCH must be in NORMAL position to relieve pressure before disconnecting hydraulic hoses. Failure to comply may result in serious injury or death to personnel.

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**WARNING**

Keep hands and feet clear of outriggers during operation. Failure to comply may result in injury to personnel.

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**WARNING**

Keep boom clear of all electrical lines and other obstacles while operating Material Handling Crane (MHC). Failure to comply may result in serious injury or death to personnel.

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**WARNING**

Area must be clear of personnel before operating swing or telescoping boom. Boom must be rotated and telescoped slow enough so Operator has control of load. If Operator cannot see load during operation, operate Material Handling Crane (MHC) with REMOTE CONTROL UNIT. Failure to comply may result in serious injury or death to personnel.

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**WARNING**

Operator must keep load in sight at all times while operating Material Handling Crane (MHC). Load may unexpectedly shift. Failure to comply may result in serious injury or death to personnel.

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**WARNING**

Do not operate Material Handling Crane (MHC) unless outriggers are set up and MHC is level from side to side. Failure to comply may result in serious injury or death to personnel.

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Manual provided by eMilitary Manuals-http://www.emilitarymanuals.com
WARNING

Do not operate Material Handling Crane (MHC) and 15K Self-Recovery Winch (SRW) at the same time. Load may unexpectedly shift. Failure to comply may result in serious injury or death to personnel.

WARNING

Material Handling Crane (MHC) must be operated with REMOTE CONTROL UNIT if Operator is not able to keep load in sight at all times during operation. Failure to comply may result in serious injury or death to personnel.

WARNING

Main panel Material Handling Crane (MHC) controls must not be used when WRECKER REMOTE CONTROL is connected. MHC may move inadvertently. Failure to comply may result in serious injury or death to personnel.

WARNING

Wheels must always be chocked before operating Material Handling Crane (MHC). Vehicle may move or load may shift. Failure to comply may result in serious injury to personnel or damage to equipment.

WARNING

Goggles must be worn while operating Material Handling Crane (MHC) controls. Blowing dust and debris may become airborne while engine is running. Failure to comply may result in serious injury to personnel.

WARNING

Outriggers must be positioned so that Material Handling Crane (MHC) is level from side to side. Use of MHC when vehicle is not level can cause vehicle to roll over. Failure to comply may result in serious injury or death to personnel.
WARNING

Attach guide lines to load to keep control of load at all times. An assistant is required to attach guide lines. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Do not raise vehicle tires off ground with outriggers. Vehicle may roll over. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

There must always be at least five wraps of cable on 15K Self-Recovery Winch (SRW). If load is applied with less than five wraps of cable on 15K SRW, cable may come loose on drum. Failure to comply may result in serious injury or death to personnel.

WARNING

Ensure line pull does not exceed capacity of 15K Self-Recovery Winch (SRW). Failure to comply may result in serious injury or death to personnel.

WARNING

Cab protector is spring loaded and weighs approximately 180 lbs (82 kgs). Hold cab protector down before removing pins. Slowly allow cab protector to raise to vertical position after pins are removed. Failure to comply may result in injury to personnel.

WARNING

Ensure no one is behind tailgate before dump body is raised. Failure to comply may result in serious injury or death to personnel.

WARNING

Assistant must stand clear when dump body is being lowered. Failure to comply may result in injury to personnel.
WARNING SUMMARY - Continued

WARNING

Cab protector is spring loaded and weighs approximately 180 lbs (82 kgs). Keep pressure on cab protector when lowering and when installing pins. Failure to comply may result in injury to personnel.

WARNING

Do not press dump TAILGATE RELEASE switch while tailgate is not connected at the top. Tailgate will fall from dump body. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Dump body must be supported by maintenance legs at any time that maintenance is performed with dump body up. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Dump cover weighs approximately 60 lbs (27 kgs). Arctic dump cover weighs approximately 100 lbs (45 kgs). An assistant is required to lift dump cover. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Position of assistant must be known at all times. Do not allow anyone to stand between tractor and trailer, behind trailer, or under trailer neck during coupling of tractor to trailer. Failure to comply may result in serious injury or death to personnel.

WARNING

DO NOT attempt to use hydraulic jack on rear axles without jack adapter installed. Failure to comply may result in serious injury or death to personnel.

WARNING

Pressure in coolant reservoir must be released before removing cap. Failure to comply may result in injury to personnel.
WARNING SUMMARY - Continued

_____ WARNING _____

Trailer wheels must be chocked before coupling/uncoupling with fifth wheel. Trailer wheels may roll if they are not chocked. Failure to comply may result in serious injury or death to personnel or damage to equipment.

_____ WARNING _____

Listen for air leaks coming from the connections at the SERVICE and EMERGENCY gladhands. Failure to comply may result in serious injury or death to personnel or damage to equipment.

_____ WARNING _____

Do not overfill coolant reservoir. Overfilling coolant reservoir will not allow enough space for coolant to expand during troopseat heater operation. Failure to comply may result in injury to personnel or damage to personnel.

_____ WARNING _____

Use this procedure only in the event of an emergency. Using the MANUAL OVERRIDE switch to operate the Material Handling Crane (MHC) defeats the overload shutdown circuits and allows the MHC to exceed the rated capacity. Failure to comply may result in serious injury or death to personnel or damage to equipment.

_____ WARNING _____

Extreme care should be taken when removing radiator cap if WATER TEMP gage reads above 180° F (82° F). Contact with steam or hot coolant under pressure may result. Failure to comply may result in injury to personnel.

_____ WARNING _____

Use care when removing debris from engine fan. Engine components will be hot. Failure to comply may result in injury to personnel.
Never raise cab while occupied or when parked uphill on a steep grade. Failure to comply may result in serious injury or death to personnel.

Power cable must be connected to Light Material Handling Crane (LMHC) before being connected to circuit breaker box. Failure to comply may result in serious injury or death to personnel.

Ensure that engine is shut down before connecting power cable at vehicle NATO connector. Failure to comply may result in injury or death to personnel.

Determine required Light Material Handling Crane (LMHC) settings prior to raising boom. Failure to comply may result in injury to personnel or damage to equipment.

Ensure there are at least two wraps of cable on hoist drum at all times. Cable could come off hoist drum while load is being lifted. Failure to comply may result in injury to personnel or damage to equipment.

Ensure that engine is not running before disconnecting circuit breaker box NATO connector from vehicle NATO connector. Failure to comply may result in serious injury or death to personnel.

Power source must be turned off before disconnecting power cable. Failure to comply may result in injury to personnel or damage to equipment.
WARNING SUMMARY - Continued

WARNING

Light Material Handling Crane (LMHC) boom and winch weighs approximately 110 lbs (50 kgs). The aid of an assistant is required to remove LMHC boom and winch. Failure to comply may result in injury to personnel.

WARNING

Light Material Handling Crane (LMHC) mast weighs approximately 110 lbs (50 kgs). Use the aid of an assistant to remove mast from cargo bed pocket. Failure to comply may result in injury to personnel.

WARNING

Light Material Handling Crane (LMHC) mast weighs approximately 110 lbs (50 kgs). Use the aid of an assistant to install mast from cargo bed pocket. Failure to comply may result in injury to personnel.

WARNING

Light Material Handling Crane (LMHC) boom and winch weighs approximately 110 lbs (50 kgs). The aid of an assistant is required to install LMHC boom and winch. Failure to comply may result in injury to personnel.

WARNING

Cargo bed is approximately 5 ft (1.5 m) above ground level. Use care during any Light Material Handling Crane (LMHC) operation. Failure to comply may result in injury or death to personnel.

WARNING

Ensure that wheels are chocked prior to setting up Light Material Handling Crane (LMHC). Failure to comply may result in injury to personnel.

WARNING

Determine required Light Material Handling Crane (LMHC) settings prior to telescoping boom. Failure to comply may result in injury to personnel or damage to equipment.
WARNING SUMMARY - Continued

WARNING

 Ensure that service and emergency gladhand connections do not leak. Failure to comply may result in serious injury or death to personnel, or damage to equipment.

WARNING

 Keep hands clear of 30K winch during operation. Failure to comply may result in injury to personnel.

WARNING

 Operate vehicle at high idle (1350 rpm) until coolant temperature is 165° F (74° C) and windshield is sufficiently clear of frost/ice. Failure to comply may cause serious injury to personnel or may result in damage to equipment.

WARNING

 Area must be clear on both sides before extending outriggers. Failure to comply may result in serious injury to personnel.

WARNING

 When operating the vehicle in snowy or icy conditions, apply the brake pedal momentarily, every few miles. This will ensure that brake linings do not become encrusted with snow or ice. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

 Do not engage engine exhaust brake feature in icy or slippery conditions. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

 Do not drive vehicle until windshield is sufficiently clear of frost/ice. Failure to comply may result in severe injury or death to personnel.
WARNING

Never mix gasoline or JP-4 turbine fuel with other fuels outside vehicle fuel tank. Any mixture should be done by adding fuels to fuel tank. Gasoline and JP-4 turbine fuel are highly combustible and may explode, resulting in injury or death to personnel.

WARNING

Do not place hands near pintle hook when aligning towbar eye with pintle hook or when removing towbar. Failure to comply may result in injury to personnel.

WARNING

Do not place hands near pintle hook when removing towbar. Failure to comply may result in injury to personnel.

WARNING

Keep hands and feet clear of the outriggers during operation. Failure to comply may result in injury to personnel.

WARNING

Do not disconnect cable from stowage ring until boom is raised to a 30-degree angle. Hook assembly could fall. Failure to comply may result in injury to personnel.

WARNING

Operator must keep control of load at all times. Attach guide lines to load. An assistant is required to attach guide lines. Failure to comply may result in serious injury or death to personnel.

WARNING

Gasoline is highly flammable. Do not smoke or have open flames within 25 feet of area when draining tank. Failure to comply may result in serious injury or death to personnel.
WARNING

Area must be clear of personnel before rotating or telescoping boom. Boom must be rotated and telescoped slow enough so operator has control of load. If Operator cannot see load during operation, operate Material Handling Crane (MHC) with REMOTE CONTROL UNIT. Failure to comply may result in serious injury or death to personnel.

WARNING

Vehicle Operator and all crew members must wear properly fitted and approved hearing protection devices when operating any FMTV at speeds of 40 mph (64 km/h) and above. Failure to comply may result in injury to personnel.

WARNING

Operators of the M1084A1, M1086A1, and M1089A1 Material Handling Crane (MHC) must wear properly fitted and approved hearing protection devices during all craning operations. Failure to comply may result in injury to personnel.

WARNING

All personnel working within 12 ft (3.5 m) of an operating M1084A1 or M1085A1 cargo vehicle must wear properly fitted and approved hearing protection devices. Failure to comply may result in injury to personnel.

WARNING

All personnel working within 18 ft (5.5 m) of an operating M1089A1 wrecker must wear properly fitted and approved hearing protection devices. Failure to comply may result in injury to personnel.

WARNING

Personnel firing the M240/M2HB machine gun or Mark 19 grenade launcher from an FMTV vehicle during training exercises must be wearing properly fitted and approved hearing protection devices. Failure to comply may result in injury to personnel.
WARNING SUMMARY - Continued

WARNING

All personnel within 180 ft (55 m) of weapons being fired from an FMTV vehicle during training exercises must be wearing properly fitted and approved hearing devices. Failure to comply may result in injury to personnel.

WARNING

When mission requires the vehicle Operator and crew to remain in a stationary FMTV vehicle with the engine running in outside temperatures above 90° F (32° C) vehicle Operator and crew must observe proper safety precautions to prevent heat stress injury. Refer to FM 21-10 Field Hygiene and Sanitation, and FM 21-11 First Aid for Soldiers for proper precautions and preventive measures. Failure to comply may result in injury to personnel.

WARNING

When mission requires the vehicle Operator and crew to operate the FMTV vehicle in outside temperatures above 90° F (32° C) with the windows closed, vehicle Operator and crew must observe proper safety precautions to prevent heat stress injury. Refer to FM 21-10 Field Hygiene and Sanitation, and FM 21-11 First Aid for Soldiers for proper precautions and preventive measures. Failure to comply may result in injury to personnel.

WARNING

Do not flat tow a fully loaded MTV and trailer combination. The FMTV Wrecker towbar can be damaged if weight capacity is exceeded. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

When towing a vehicle with nonfunctional brakes, use extreme caution and reduce/adjust speed accordingly. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Keep all personnel clear of area when tension is on cable. Failure to comply may result in serious injury or death to personnel.
WARNING SUMMARY - Continued

WARNING

Wear heavy leather-palmed work gloves when handling wire rope. Never let moving wire rope slide through hands, even when wearing gloves. Failure to comply may result in serious injury to personnel.

WARNING

Flagged safety pin is only removed for pneumatic operation of tailgate. It will remain installed at all other times. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Tailgate may be hinged from the top or bottom depending on mission requirements. Use care during positioning. Failure to comply may result in injury to personnel.

WARNING

Prior to normal driving, the flagged safety pin must be installed. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Tailgate weighs approximately 270 lbs. (123 kgs). Use care when handling. Two assistants are required to lower or raise tailgate. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Ensure flagged safety pin and manual release handle pin are installed prior to using bottom hinge option. Failure to comply may result in injury to personnel.

WARNING

Tailgate weighs approximately 270 lbs. (123 kgs). Use care when lowering or raising. Failure to comply may result in injury to personnel.
WARNING SUMMARY - Continued

**WARNING**

Vehicle S/N 18,550 or higher are equipped with a Load and Battery Control Device (LBCD). LBCD have internal capacitors, which must be discharged prior to maintenance or troubleshooting procedures being performed. Failure to comply may result in damage to equipment and/or injury to personnel.

**WARNING**

Do not operate vehicle if radiator cap is damaged or missing. Failure to comply will result in injury to personnel or damage to equipment.