

**TECHNICAL MANUAL
MAINTENANCE INSTRUCTIONS
DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE
M1078 SERIES, 2 1/2-TON, 4 X 4,
LIGHT MEDIUM TACTICAL VEHICLES (LMTV)**

VOLUME NO. 1 OF 2

**HOW TO USE THIS MANUAL
PAGE vii**

**GENERAL INFORMATION
PAGE 1-1**

**VEHICLE MAINTENANCE
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**VEHICLE TROUBLESHOOTING
PAGE 2-8**

MODEL	NSN	EIC
TRK, CAR., LMTV, M1078		
W/WN	2320-01-360-1898	BHH
W/O WN	2320-01-354-3385	BHD
TRK, VAN, LMTV, M1079		
W/WN	2320-01-360-1891	BHG
W/O WN	2320-01-354-3384	BHE
TRK, CHAS, LMTV, M1080		
W/O WN	2320-01-353-9098	BHC
TRK, CAR., LMTV, AIR DROP, M1081		
W/WN	2320-01-360-1899	BHJ
W/O WN	2320-01-355-3064	BHF

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HEADQUARTERS, DEPARTMENTS OF THE ARMY AND THE AIR FORCE

17 JUNE 1998

WARNING SUMMARY**WARNING****EXHAUST GASES CAN KILL**

1. **DO NOT** operate your vehicle engine in enclosed area.
2. **DO NOT** idle vehicle engine with cab windows enclosed.
3. **DO NOT** drive vehicles with inspection plates or covers removed.
4. **BE ALERT** at all times for exhaust odors.
5. **BE ALERT** for exhaust poisoning symptoms, they are:

Headache

Dizziness

Sleepiness

Loss of Muscular Control

6. **IF YOU SEE** another person with exhaust poisoning symptoms:

Remove person from area.

Expose to open air.

Keep person warm.

Do not permit person to move.

Administer cardiopulmonary resuscitation, if necessary.*

* For cardiopulmonary resuscitation, refer to FM 21-11.

WARNING

Remove rings, bracelets, watches, necklaces, and any other jewelry before working around vehicle. Jewelry can catch on equipment and cause injury or short across electrical circuit and cause severe burns or electrical shock. Batteries can explode from a spark. Battery acid is harmful to skin and eyes. Always wear eye protection and rubber gloves when working with batteries.

WARNING

Battery acid (electrolyte) is extremely harmful. Always wear safety goggles and rubber gloves, and do not smoke when performing maintenance on batteries. Injury will result if acid contacts skin or eyes. Wear rubber apron to prevent clothing being damaged.

WARNING SUMMARY (CONT)

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 a 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 injury 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 breathe vapors. Keep away from heat or flame. Never smoke when using solvent; the flashpoint for Type I Dry Cleaning Solvent is 100 ° F (38 ° C) and for Type II is 130 ° F (50 ° C). Failure to comply may result in serious injury or death to personnel.
- If personnel become dizzy while using dry cleaning solvent, immediately get fresh air and medical help. If solvent contacts skin or clothes, flush with cold water. If solvent contacts eyes, immediately flush eyes with water and get immediate medical attention. Failure to comply may result in injury to personnel.

WARNING

Diesel fuel is flammable. If fuel is spilled, clean it up immediately. Failure to comply may result in serious injury or death to personnel.

WARNING

After Nuclear, Biological, or Chemical (NBC) exposure of vehicle, all air filters shall be handled with extreme caution. Unprotected personnel may experience serious injury or death if residual toxic agents or radioactive material are present. If vehicle is exposed to chemical or biological agents, servicing personnel shall wear protective mask, hood, protective overgarments, and chemical protective gloves and boots in accordance with FM-3-4. All contaminated air filters shall be placed in double-lined plastic bags and moved swiftly to a segregation area away from the worksite. The same procedure applies for radioactive dust contamination. The Company NBC team should measure radiation prior to filter removal to determine extent of safety procedures required per the NBC Annex to the unit Standard Operating Procedures (SOP). The segregation area in which the contaminated air filters are temporarily stored shall be marked with appropriate NBC placards. Final disposal of contaminated air filters shall be in accordance with local SOP. Decontamination operation shall be in accordance with FM-3-5 and local SOP. 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 the 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

Adhesive sealant MIL-S-46163 can damage your eyes. Wear safety goggles/glasses when using; avoid contact with eyes. If sealant contacts eyes, flush eyes with water and get immediate medical attention. Failure to comply may result in injury to personnel.

WARNING

Use care when removing springs. Springs are under tension and can act as projectiles when being removed. Failure to comply may result in injury to personnel.

WARNING

Use care when installing springs. Springs are under tension and can act as projectiles when being removed. Failure to comply may result in injury to personnel.

WARNING

Use care when removing retaining rings. Retaining rings are under tension and can act as projectiles when released. Failure to comply may result in injury to personnel.

WARNING

Use care when installing retaining rings. Retaining rings are under tension and can act as projectiles when released. Failure to comply may result in injury to personnel.

WARNING

Ensure exhaust system is cool before performing maintenance. Failure to comply may result in injury to personnel.

WARNING

Wear appropriate eye protection when working under vehicle due to the possibility of falling debris. Failure to comply may result in injury to personnel.

WARNING SUMMARY (CONT)

WARNING

Do not operate MTV vehicle with muffler removed. Toxic exhaust fumes may enter cab, resulting in serious injury or death to personnel.

WARNING

Do not work on fuel system when engine is hot; fuel can be ignited by a hot engine.

WARNING

Post signs that read "NO SMOKING WITHIN 50 FEET" when working with open fuel, fuel lines or fuel tanks. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Exhaust pipe, transmission oil lines, and transmission scavenge pump hose may be hot to the touch. Extreme care should be taken when checking exhaust pipe, transmission oil lines, and transmission scavenge pump hose for leaks. Failure to comply may result in injury to personnel.

WARNING

Compressed air used for cleaning purposes will not exceed 30 psi (207 kPa). Use only with effective chip guarding and personal protective equipment (goggles/shield, gloves, etc). Failure to comply may result in injury to personnel.

WARNING

Wheel drum weighs approximately 90 lbs (41 kgs). Use the aid of an assistant to help remove wheel drum. Failure to comply may result in injury to personnel.

WARNING

Wheel drum weighs approximately 90 lbs (41 kgs). Use the aid of an assistant to help install wheel drum. Failure to comply may result in injury to personnel.

WARNING

Brake shoes may be covered with dust. Breathing this dust may be harmful to your health. Do not use compressed air to clean brake shoes. Wear a filter mask approved for use against brake dust. Failure to comply may result in injury to personnel.

WARNING

Cage spring brake before air chamber is removed or serious injury to personnel will occur.

WARNING

Ensure air chamber is caged prior to installation. Failure to comply may result in injury to personnel.

WARNING

Ensure that tire is totally deflated before removing self-locking nuts. Failure to comply may result in serious injury or death to personnel.

WARNING

Spring brakes must be caged before attempting replacement of a rear axle wheel stud. Failure to comply may result in injury to personnel.

WARNING

Wear protective goggles to protect against possible injury from release of high pressure air. Failure to comply may result in injury to personnel.

WARNING

Prolonged contact with lubricating oil (MIL-L-2104) may cause a skin rash. Skin and clothing that come in contact with lubricating oil should be thoroughly washed immediately. Saturated clothing should be removed immediately. Areas in which lubricating oil is used should be well ventilated to keep fumes to a minimum. Failure to comply may result in injury to personnel.

WARNING

Hydraulic fluid (MIL-H-5606) 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 oil should be washed immediately. Saturated clothing should be removed immediately. Failure to comply may result in injury to personnel.

WARNING

Wire rope can become frayed or contain broken wires. Wear heavy leather-palmed gloves when handling wire rope. Frayed or broken wires can injure hands. Failure to comply may result in injury to personnel.

WARNING SUMMARY (CONT)

WARNING

Never let moving wire rope slide through hands, even when wearing gloves. A broken wire could cut through gloves and cut hands.

WARNING

Wear appropriate eye protection when drilling out rivets. Failure to comply may result in injury to personnel.

WARNING

Wear leather gloves at all times when handling winch cable. Do not allow cable to slide through hands even with gloves on. Broken wires may cause injury.

WARNING

Use extreme caution when working around moving cable. Failure to do so may result in serious injury to personnel.

WARNING

Do not remove radiator cap when the engine is hot; steam and hot coolant can escape and burn skin. Failure to comply may result in injury to personnel.

WARNING

Use extreme care when opening cab door with cab raised. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Ensure engine is cool before performing troubleshooting. Failure to comply may result in severe burns.

WARNING

Ensure exhaust system is cool before performing troubleshooting. Failure to comply may result in injury to personnel.

WARNING

Caution must be exercised while cab is raised. Ensure that locking mechanism is functioning properly before proceeding. Failure to comply may result in death or serious injury to personnel and damage to equipment.

WARNING

Ensure all pressure is released from engine container. Failure to comply may result in injury to personnel.

WARNING

Engine container cover weighs approximately 130 lbs (59 kgs). Attach a suitable lifting device prior to unpacking. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Engine assembly weighs approximately 1500 lbs (681 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Engine assembly weighs approximately 1500 lbs (681 kgs). Attach a suitable lifting device prior to packing. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Storage container cover weighs approximately 130 lbs (59 kg). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Alternator weighs approximately 50 lbs (23 kgs). The aid of an assistant is required to remove alternator. Failure to comply may result in injury to personnel.

WARNING

Alternator weighs approximately 50 lbs (23 kgs). The aid of an assistant is required to install alternator. Failure to comply may result in injury to personnel.

WARNING

Cylinder head weighs approximately 150 lbs (68 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING SUMMARY (CONT)

WARNING

Cylinder head weighs approximately 150 lbs (68 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Wear appropriate eye protection when drilling holes. Failure to comply may result in injury to personnel.

WARNING

Flywheel housing weighs approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Flywheel housing weighs approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Engine compartment and components may be hot to the touch. Extreme care should be taken when adjusting idle speed. Failure to comply may result in injury to personnel.

WARNING

Engine compartment includes a partially covered fan blade. Extreme care should be taken when working in the engine compartment. Failure to comply may result in injury to personnel.

WARNING

Use care when removing retaining clips. Retaining clips are under tension and can act as projectiles when released. Failure to comply may result in injury to personnel.

WARNING

Use care when installing retaining clips. Retaining clips are under tension and can act as projectiles when released. Failure to comply may result in injury to personnel.

WARNING

Clutch housing is assembled under tension. Use caution during disassembly. Failure to comply may result in injury to personnel.

WARNING

Loosen C-clamps slowly and evenly to release tension. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Tighten C-clamps slowly and evenly to apply tension. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

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

WARNING

Torque converter module weighs approximately 65 lbs (30 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel.

WARNING

Torque converter module weighs approximately 65 lbs (30 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Transmission weighs approximately 1300 lbs (590 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Transmission weighs approximately 1300 lbs (590 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING SUMMARY (CONT)

WARNING

Use care when removing valve body parts retained by retaining pins. Valve body parts are under tension and can act as projectiles when released. Failure to comply may result in injury to personnel.

WARNING

Use care when installing valve body parts retained by retaining pins. Valve body parts are under tension and can act as projectiles when released. Failure to comply may result in injury to personnel.

WARNING

Control valve module weighs approximately 65 lbs (30 kgs). Position a floor jack under control module prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Control valve module weighs approximately 65 lbs (30 kgs). Position a floor jack under control module prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Front axle assembly weighs approximately 1580 lbs (717 kgs). Front axle assembly must be supported on a transmission/differential lift during removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Front axle assembly weighs approximately 1580 lbs (717 kgs). Front axle assembly must be supported on a transmission/ differential lift during installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Front differential carrier weighs approximately 350 lbs (159 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Front differential carrier weighs approximately 350 lbs (159 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Steering knuckle weighs approximately 150 lbs (68 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Steering knuckle weighs approximately 150 lbs (68 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Rear axle assembly weighs approximately 1580 lbs (717 kgs). Rear axle assembly must be supported on a transmission/ differential lift during removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Rear axle assembly weighs approximately 1580 lbs (717 kgs). Rear axle assembly must be supported on a transmission/ differential lift during installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Rear axle differential carrier weighs approximately 400 lbs (182 kgs). Rear axle differential carrier must be supported on transmission/ differential lift during removal. Failure to comply may cause serious injury to personnel or damage to equipment.

WARNING

Adhesive causes immediate bonding on contact with eyes, skin, or clothing and also gives off harmful vapors. Wear protective goggles and use in well-ventilated area. If adhesive get in eyes, try to keep eyes open, flush eyes with water for 15 minutes, and get immediate medical attention. Failure to comply may result in injury to personnel.

WARNING SUMMARY (CONT)

WARNING

Steering gear assembly weighs approximately 130 lbs (59 kgs). Support steering gear assembly on jack before dismounting from chassis. Failure to comply can cause injury to personnel or damage to equipment.

WARNING

Steering gear assembly weighs approximately 130 lbs (59 kgs). Support steering gear assembly on jack during installation. Failure to comply may cause injury to personnel or damage to equipment.

WARNING

Parachute suspension assembly weighs approximately 250 lbs (113 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in damage to equipment or injury to personnel.

WARNING

Parachute suspension assembly weighs approximately 250 lbs (113 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in damage to equipment or injury to personnel.

WARNING

Frame plate weighs approximately 50 lbs (23 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in damage to equipment or injury to personnel.

WARNING

Frame plate weighs approximately 50 lbs (23 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in damage to equipment or injury to personnel.

WARNING

Lifting beam weighs approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Front lifting bracket assembly weighs approximately 300 lbs (136 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Front lifting bracket assembly weighs approximately 300 lbs (136 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Lifting beam weighs approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Frame rail weighs approximately 250 lbs (113 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in damage to equipment or injury to personnel.

WARNING

Frame rail weighs approximately 250 lbs (113 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in damage to equipment or injury to personnel.

WARNING

Subframe rail weighs approximately 180 lbs (82 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Subframe rail weighs approximately 180 lbs (82 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Front crossmember weighs approximately 200 lbs (91 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING SUMMARY (CONT)

WARNING

Front crossmember weighs approximately 200 lbs (91 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Intermediate crossmember weighs approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in damage to equipment or injury to personnel.

WARNING

Intermediate crossmember weighs approximately 75 lbs (34 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in damage to equipment or injury to personnel.

WARNING

Do not attempt to repair or disassemble leaf springs. Leaf springs are under extreme tension. Failure to comply may result in serious injury or death to personnel.

WARNING

Wear protective goggles to protect against possible injury from release of high pressure air. Failure to comply may result in injury to personnel.

WARNING

Brace cab prior to removal of cotter pin from cab tilt cylinder mounting bolt. Failure to comply may result in serious injury or death to personnel or damage to equipment.

WARNING

Cab must be braced on cab support tool prior to removal of cotter pin from cab tilt cylinder mounting bolt. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Standard cab weighs approximately 1400 lbs (636 kgs). M1081 cab weighs approximately 1700 lbs (772 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Cab may swing forward slightly when screws are removed. An assistant is required to steady cab. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Brace cab with cab support tool before installing locking arm, spacer, washer, and cotter pin on tilt cylinder mounting bolt. Failure to comply may result in serious injury or death to personnel.

WARNING

After cab is lowered on cab support tool, return cab tilt selector knob to the RAISE position for added safety. Failure to comply may result in injury to personnel.

WARNING

Goggles and gloves must be worn when working with glass. Failure to comply may result in injury to personnel.

WARNING

Cargo bed weighs approximately 2610 lbs (1185 kgs). Attach a suitable lifting device to four corner tiedown points prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Cargo bed weighs approximately 2610 lbs (1185 kgs). Attach a suitable lifting device to four corner tiedown points prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

11K Self-recovery winch (SRW) weighs approximately 130 lbs (59 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING SUMMARY (CONT)

WARNING

11K Self-recovery winch (SRW) weighs approximately 130 lbs (59 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Use care when removing screws. Pump is under spring tension. Failure to comply may result in injury to personnel.

WARNING

Use care when installing screws, pump is under spring tension. Failure to comply may result in injury to personnel.

WARNING

Machine gun ring assembly weighs approximately 350 lbs (159 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Some chemical agents (detergents, solvents, alkalis, etc.) may irritate skin or be harmful to the eyes, nose, and throat. Some must be used only with adequate ventilation. When working with potentially harmful chemical substances, read and heed all warnings on the product labels and follow prescribed safety precautions. When working with any potentially harmful substance; including live steam, hot water, and compressed air; wear appropriate safety equipment and use extreme care. Failure to comply may result in injury to personnel.

WARNING

High pressure steam can blow particles or chemicals into eyes, can cause severe burns, and creates hazardous noise levels. Wear appropriate eye, skin, and hearing protection when using high pressure steam. Failure to comply may result in serious injury to personnel.

WARNING

Follow these general precautions whenever using these methods of crack detection to prevent personnel injury. Never shine the black light directly into the eyes. Do not smoke or eat while using inspection chemicals. Avoid getting chemicals on clothing. Avoid inhaling spray mist, airborne powder dust and solvent vapors. Provide adequate ventilation. Store chemicals away from open flames and sources of heat. Failure to comply may result in injury to personnel.

WARNING

Crankshaft weighs approximately 130 lbs (59 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Diesel fuel is flammable. Keep diesel fuel away from open fire and keep a fire extinguisher within easy reach when working with diesel fuel. Do not smoke when working with diesel fuel. If fuel is spilled, clean it up immediately. Failure to comply may result in serious injury or death to personnel.

WARNING

Crankshaft weighs approximately 130 lbs (59 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Use extreme care when handling heated gear. Failure to comply may result in injury to personnel.

WARNING

Use extreme care when handling heated camshaft gear. Failure to comply may result in injury to personnel.

WARNING

Torque converter housing weighs approximately 65 lbs (30 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Torque converter housing weighs approximately 65 lbs (30 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

C3/C4 clutch spring assemblies are under pressure. Loosen bolts evenly during disassembly. Failure to comply may result in injury to personnel or damage to equipment.

WARNING SUMMARY (CONT)

WARNING

Transfer case weighs approximately 500 lbs (227 kgs). Attach a suitable lifting device prior to removal. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Transfer case module weighs approximately 500 lbs (227 kgs). Attach a suitable lifting device prior to installation. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Transfer case cover weighs approximately 75 lbs (34 kgs). The aid of an assistant is required to safely lift it. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Front axle differential carrier weighs approximately 350 lbs (159 kgs). Attach a suitable lifting device prior to moving. Failure to comply may result in injury to personnel or damage to equipment.

WARNING

Rear axle differential carrier weighs approximately 350 lbs (159 kgs). Attach a suitable lifting device prior to moving. Failure to comply may result in injury to personnel or damage to equipment.

CHANGE
NO. 1

HEADQUARTERS
DEPARTMENTS OF THE ARMY
AND THE AIR FORCE

Washington, D.C., 31 July 2001

TECHNICAL MANUAL
MAINTENANCE INSTRUCTIONS
DIRECT SUPPORT AND GENERAL SUPPORT MAINTENANCE
M1078 SERIES, 2-1/2-TON, 4x4,
LIGHT MEDIUM TACTICAL VEHICLE
(LMTV)

VOLUME NO. 1 OF 2

TM 9-2320-365-34-1, 17 June 1998, is changed as follows:

1. Remove old pages and insert new pages as indicated below.
2. New or changed material is indicated by a vertical bar in the out margin of the page.
3. Added or revised illustrations are indicated by a vertical bar adjacent to the illustration.

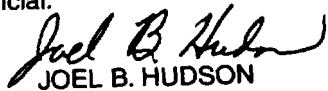
Remove Pages	Insert Pages	Remove Pages	Insert Pages
c thru f	c thru f	D-19 thru D-24	D-19 thru D-24
none	g thru r	D-31 thru D-40	D-31 thru D-40
none	A thru E/(F Blank)	D-67/(D-68 Blank)	D-67 and D-68
i thru viii	i thru viii	none	D-69 thru D-71/(D-72 Blank)
none	ix and x	F-1 thru F-11/(F-12 Blank)	F-1 thru F-12
1-7 thru 1-27/(1-28 Blank)	1-7 thru 1-27/(1-28 Blank)	G-1/(G-2 Blank)	G-1/(G-2 Blank)
2-1 and 2-2	2-1 and 2-2	none	H-1 thru H-4
2-5 thru 2-14	2-5 thru 2-14	INDEX-1 thru INDEX-19/ (INDEX-20 Blank)	INDEX-1 thru INDEX-20
2-63/(2-64 Blank)	2-63 and 2-64	DA Form 2028-2 Sample	DA Form 2028 Sample
none	2-64.1 thru 2-64.15/ (2-64.16 Blank)	DA Form 2028-2	DA Form 2028
2-65 and 2-66	2-65 and 2-66	DA Form 2028-2	DA Form 2028
2-69 thru 2-71/(2-72 Blank)	2-69 thru 2-72	DA Form 2028-2	DA Form 2028
none	2-72.1/(2-72.2 Blank)	FO-1 FP-1/(FP-2 Blank)	FO-1 FP-1/(FP-2 Blank)
2-73 thru 2-200	2-73 thru 2-200	thru FP-19/(FP-20 Blank)	thru FP-19/(FP-20 Blank)
none	2-200.1 and 2-200.2	FO-1 FP-23/(FP-24 Blank)	FO-1 FP-23/(FP-24 Blank)
2-201 thru 2-416	2-201 thru 2-416	FO-1 FP-27/(FP-28 Blank)	FO-1 FP-27/(FP-28 Blank)
none	2-416.1 and 2-416.2	thru FP-61/(FP-62 Blank)	thru FP-61/(FP-62 Blank)
2-417 thru 2-588	2-417 thru 2-588	FO-1 FP-65/(FP-66 Blank)	FO-1 FP-65/(FP-66 Blank)
none	2-588.1 thru 2-588.4	and FP-67/(FP-68 Blank)	and FP-67/(FP-68 Blank)
2-589 thru 2-836	2-589 thru 2-836	Back Cover	Back Cover
none	2-836.1 and 2-836.2		
2-837 thru 2-957/ (2-958 Blank)	2-837 thru 2-958		
none	2-958.1 thru 2-958.3/ (2-958.4 Blank)		
2-959 and 2-960	2-959 and 2-960		
2-963 and 2-964	2-963 and 2-964		
2-969 and 2-970	2-969 and 2-970		
2-975 and 2-976	2-975 and 2-976		
A-1 and A-2	A-1 and A-2		
C-1 thru C-8	C-1 thru C-8		
D-3 thru D-6	D-3 thru D-6		

Place this change sheet in the front of the publication for reference purposes.

By Order of the Secretary of the Army:

ERIC K. SHINSEKI
General, United States Army
Chief of Staff

Official:



Handwritten signature of Joel B. Hudson in black ink.

JOEL B. HUDSON

*Administrative Assistant to the
Secretary of the Army*

0110107

DISTRIBUTION: To be distributed in accordance with initial distribution number (IDN) 380937 requirements for TM 9-2320-365-34-1.

LIST OF EFFECTIVE PAGES

Insert latest changed pages. Destroy superseded pages.

NOTE: New or changed material is indicated by a vertical bar in the outer margin of the page.

Dates of issue for original and changed pages are:

Original..... 0.....17 June 1998
 Change..... 1.....31 July 2001

THE TOTAL NUMBER OF PAGES IN THIS PUBLICATION IS 2664, CONSISTING OF THE FOLLOWING:

Page No.	*Change No.	Page No.	*Change No.	Page No.	*Change No.
VOLUME 1					
Cover.....	1	2-958.1 thru 2-958.3 Added.....	1	INDEX-1 thru INDEX-20.....	1
Blank.....	0	2-958.4 Blank Added.....	1	Glossary-1.....	0
a and b.....	0	2-959.....	1	Glossary-2 Blank.....	0
c thru f.....	1	2-960 and 2-961.....	0	FO-1 FP-1.....	1
g thru r Added.....	1	2-962 Blank.....	0	FO-1 FP-2 Blank.....	0
A thru E Added.....	1	2-963.....	1	FO-1 FP-3.....	1
F Blank Added.....	1	2-964 thru 2-967.....	0	FO-1 FP-4 Blank.....	0
i.....	1	2-968 Blank.....	0	FO-1 FP-5.....	1
ii and iii.....	0	2-969.....	1	FO-1 FP-6 Blank.....	0
iv thru viii.....	1	2-970 thru 2-973.....	0	FO-1 FP-7.....	1
ix and x Added.....	1	2-974 Blank.....	0	FO-1 FP-8 Blank.....	0
1-1 thru 1-6.....	0	2-975.....	1	FO-1 FP-9.....	1
1-7 thru 1-27.....	1	2-976 thru 2-981.....	0	FO-1 FP-10 Blank.....	0
1-28 Blank.....	0	2-982 Blank.....	0	FO-1 FP-11.....	1
2-1.....	1	2-983 thru 2-991.....	0	FO-1 FP-12 Blank.....	0
2-2 thru 2-5.....	0	2-992 Blank.....	0	FO-1 FP-13.....	1
2-6.....	1	A-1.....	0	FO-1 FP-14 Blank.....	0
2-7.....	0	A-2.....	1	FO-1 FP-15.....	1
2-8 thru 2-13.....	1	A-3 and A-4.....	0	FO-1 FP-16 Blank.....	0
2-14 thru 2-62.....	0	B-1 thru B-5.....	0	FO-1 FP-17.....	1
2-63 and 2-64.....	1	B-6 Blank.....	0	FO-1 FP-18 Blank.....	0
2-64.1 thru 2-64.7 Added.....	1	C-1 thru C-8.....	1	FO-1 FP-19.....	1
2-64.8 Blank Added.....	1	D-1 thru D-3.....	0	FO-1 FP-20 Blank.....	0
2-64.9 thru 2-64.15 Added.....	1	D-4 and D-5.....	1	FO-1 FP-21.....	0
2-64.16 Blank Added.....	1	D-6 thru D-19.....	0	FO-1 FP-22 Blank.....	0
2-65.....	1	D-20 thru D-23.....	1	FO-1 FP-23.....	1
2-66 thru 2-69.....	0	D-24 thru D-31.....	0	FO-1 FP-24 Blank.....	0
2-70 thru 2-72.....	1	D-32.....	1	FO-1 FP-25.....	0
2-72.1 Added.....	1	D-33.....	0	FO-1 FP-26 Blank.....	0
2-72.2 Blank Added.....	1	D-34 thru D-39.....	1	FO-1 FP-27.....	1
2-73 thru 2-200.....	1	D-40 thru D-66.....	0	FO-1 FP-28 Blank.....	0
2-200.1 and 2-200.2 Added.....	1	D-67 and D-68.....	1	FO-1 FP-29.....	1
2-201 thru 2-416.....	1	D-69 thru D-71 Added.....	1	FO-1 FP-30 Blank.....	0
2-416.1 and 2-416.2 Added.....	1	D-72 Blank Added.....	1	FO-1 FP-31.....	1
2-417 thru 2-588.....	1	E-1 thru E-8.....	0	FO-1 FP-32 Blank.....	0
2-588.1 thru 2-588.4 Added.....	1	F-1.....	0	FO-1 FP-33.....	1
2-589 thru 2-836.....	1	F-2 thru F-12.....	1	FO-1 FP-34 Blank.....	0
2-836.1 and 2-836.2 Added.....	1	G-1.....	1	FO-1 FP-35.....	1
2-837 thru 2-958.....	1	G-2 Blank.....	0	FO-1 FP-36 Blank.....	0
		H-1 thru H-4 Added.....	1	FO-1 FP-37.....	1

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FO-1 FP-39	1	FO-5 FP-3	0	5-1	1
FO-1 FP-40 Blank	0	FO-5 FP-4 Blank	0	5-2	0
FO-1 FP-41	1	FO-5 FP-5	0	5-3 and 5-4	1
FO-1 FP-42 Blank	0	FO-5 FP-6 Blank	0	5-4.1 and 5-4.2 Added	1
FO-1 FP-43	1	VOLUME 2		5-5 thru 5-7	1
FO-1 FP-44 Blank	0	Cover	1	5-8 Blank	0
FO-1 FP-45	1	Blank	0	6-1	1
FO-1 FP-46 Blank	0	a and b	0	6-2 thru 6-26	0
FO-1 FP-47	1	c thru f	1	6-27 and 6-28	1
FO-1 FP-48 Blank	0	g thru r Added	1	6-29	0
FO-1 FP-49	1	A thru D Added	1	6-30	1
FO-1 FP-50 Blank	0	i	1	6-31 and 6-32	0
FO-1 FP-51	1	ii	0	6-33 thru 6-36	1
FO-1 FP-52 Blank	0	iii thru vi	1	6-36.1 thru 6-36.15 Added	1
FO-1 FP-53	1	vii Added	1	6-36.16 Blank Added	1
FO-1 FP-54 Blank	0	viii Blank Added	1	6-37	1
FO-1 FP-55	1	3-1 thru 3-14	0	6-38 thru 6-44	0
FO-1 FP-56 Blank	0	3-15 thru 3-19	1	7-1 thru 7-3	1
FO-1 FP-57	1	3-20 thru 3-22	0	7-4 thru 7-16	0
FO-1 FP-58 Blank	0	3-23	1	7-16.1 Added	1
FO-1 FP-59	1	3-24 and 3-25	0	7-16.2 Blank Added	1
FO-1 FP-60 Blank	0	3-26	1	7-17 and 7-18	1
FO-1 FP-61	1	3-26.1 and 3-26.2 Added	1	7-19 and 7-20	0
FO-1 FP-62 Blank	0	3-27 thru 3-30	1	7-21	1
FO-1 FP-63	0	3-31	0	7-22 thru 7-24	0
FO-1 FP-64 Blank	0	3-32 thru 3-39	1	7-25 thru 7-28	1
FO-1 FP-65	1	3-40	0	7-28.1 thru 7-28.14 Added	1
FO-1 FP-66 Blank	0	3-41 and 3-42	1	7-29 thru 7-42	1
FO-1 FP-67	1	3-42.1 Added	1	7-42.1 Added	1
FO-1 FP-68 Blank	0	3-42.2 Blank Added	1	7-42.2 Blank Added	1
FO-2 FP-1	0	3-43 and 3-44	1	7-43 and 7-44	1
FO-2 FP-2 Blank	0	3-44.1 Added	1	7-45	0
FO-2 FP-3	0	3-44.2 Blank Added	1	7-46	1
FO-2 FP-4 Blank	0	3-45 thru 3-48	1	7-47 thru 7-51	0
FO-2 FP-5	0	3-49 thru 3-51	0	7-52	1
FO-2 FP-6 Blank	0	3-52 thru 3-54	1	7-53 thru 7-66	0
FO-2 FP-7	0	3-54.1 Added	1	7-67	1
FO-2 FP-8 Blank	0	3-54.2 Blank Added	1	7-68 thru 7-70	0
FO-3 FP-1	0	3-55 and 3-56	1	7-71 and 7-72	1
FO-3 FP-2 Blank	0	3-57	0	7-73 thru 7-87	0
FO-3 FP-3	0	3-58	1	7-88 thru 7-91	1
FO-3 FP-4 Blank	0	3-59 thru 3-80	0	7-92 thru 7-98	0
FO-3 FP-5	0	3-81 thru 3-83	1	7-99 thru 7-127 Added	1
FO-3 FP-6 Blank	0	3-84 thru 3-86	0	7-128 Blank Added	1
FO-4 FP-1	0	3-87 and 3-88	1	8-1	0
FO-4 FP-2 Blank	0	3-88.1 Added	1	8-2 and 8-3	1
FO-4 FP-3	0	3-88.2 Blank Added	1	8-4	0
FO-4 FP-4 Blank	0	3-89 thru 3-135	0	8-5 thru 8-10	1
FO-5 FP-1	0	3-136 Blank	0	9-1	0

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9-2	1	13-43	0	15-48.1 Added	1
9-3	0	13-44 and 13-45	1	15-48.2 Blank Added	1
9-4 and 9-5	1	13-46 thru 13-49	0	15-49 and 15-50	0
9-6	0	13-50	1	15-51 and 15-52	1
9-7 and 9-8	1	13-51	0	15-52.1 Added	1
9-8.1 Added	1	13-52 thru 13-56	1	15-52.2 Blank Added	1
9-8.2 Blank Added	1	13-57 and 13-58	0	15-53	1
9-9 and 9-10	1	13-59	1	15-54	0
9-11 thru 9-14	0	13-60 thru 13-62	0	15-55	1
9-15 and 9-16	1	13-63 and 13-64	1	15-56	0
9-16.1 Added	1	13-65 and 13-66	0	15-57	1
9-16.2 Blank Added	1	13-67	1	15-58 thru 15-62	0
9-17 thru 9-20	1	13-68 and 13-69	0	15-63	1
9-20.1 Added	1	13-70 thru 13-74	1	15-64 thru 15-67	0
9-20.2 Blank Added	1	13-75	0	15-68	1
9-21	1	13-76 thru 13-78	1	15-69 and 15-70	0
9-22 thru 9-30	0	13-79 thru 13-90	0	15-70.1 Added	1
10-1	0	13-91 thru 13-95 Added	1	15-70.2 Blank Added	1
10-2 thru 10-4	1	13-96 Blank Added	1	15-71 and 15-72	0
10-4.1 Added	1	14-1	0	15-72.1 Added	1
10-4.2 Blank Added	1	14-2 thru 14-10	1	15-72.2 Blank Added	1
10-5 thru 10-8	1	14-11	0	15-73	1
10-8.1 Added	1	14-12 thru 14-20	1	15-74 and 15-75	0
10-8.2 Blank Added	1	14-21 thru 14-25	0	15-76	1
10-9 thru 10-18	1	14-26	1	15-77 thru 15-79	0
11-1	0	14-27 thru 14-31	0	15-80	1
11-2	1	14-32	1	15-80.1 Added	1
11-3 thru 11-7	0	14-33 thru 14-37	0	15-80.2 Blank Added	1
11-8 and 11-9	1	14-38 Blank	0	15-81	1
11-10 Blank	0	15-1	0	15-82 and 15-83	0
12-1	1	15-2 thru 15-5	1	15-84	1
12-2 thru 12-14	0	15-6 thru 15-11	0	15-85 thru 15-101	0
12-15	1	15-12	1	15-102 and 15-103	1
12-16 Blank	1	15-12.1 Added	1	15-104 thru 15-115	0
12-17 and 12-18 Deleted	1	15-12.2 Blank Added	1	15-116	1
13-1	1	15-13	1	15-116.1 thru 15-116.5 Added	1
13-2 thru 13-8	0	15-14	0	15-116.6 Blank Added	1
13-9 thru 13-11	1	15-15 thru 15-19	1	15-117 and 15-122	1
13-12	0	15-20	0	15-122.1 Added	1
13-13	1	15-21 and 15-22	1	15-122.2 Blank Added	1
13-14	0	15-23 and 15-24	0	15-123	1
13-15	1	15-25 and 15-26	1	15-124	0
13-16	0	15-27 and 15-28	0	15-124.1 and 15-124.2 Added	1
13-17	1	15-29 and 15-30	1	15-125 thru 15-129	1
13-18 and 13-19	0	15-31 and 15-32	0	15-130 Blank	0
13-20	1	15-33 and 15-34	1	16-1 thru 16-18	0
13-21 thru 13-24	0	15-35	0	16-19 thru 16-21	1
13-25	1	15-36 thru 15-45	1	16-22	0
13-26 thru 13-41	0	15-46	0	16-23	1
13-42	1	15-47 and 15-48	1	16-24 thru 16-26	0

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16-27 and 16-28.....	1	22-10 thru 22-22.....	0	FO-1 FP-5	1
16-28.1 and 16-28.2 Added.....	1	23-1	0	FO-1 FP-6 Blank.....	0
16-29 and 16-30.....	1	23-2 and 23-3.....	1	FO-1 FP-7	1
16-31	0	23-4 thru 23-6	0	FO-1 FP-8 Blank.....	0
16-32	1	23-7	1	FO-1 FP-9	1
16-32.1 Added	1	23-8 thru 23-12	0	FO-1 FP-10 Blank.....	0
16-32.2 Blank Added.....	1	23-13 thru 23-15.....	1	FO-1 FP-11	1
16-33 and 16-34.....	0	23-16	0	FO-1 FP-12 Blank.....	0
16-35 and 16-36.....	1	23-17 thru 23-19.....	1	FO-1 FP-13	1
16-36.1 Added	1	23-20 Blank.....	0	FO-1 FP-14 Blank.....	0
16-36.2 Blank Added.....	1	24-1	0	FO-1 FP-15	1
16-37 and 16-38.....	0	24-2 and 24-3.....	1	FO-1 FP-16 Blank.....	0
16-39 and 16-40.....	1	24-4 thru 24-6	0	FO-1 FP-17	1
16-40.1 thru 16-40.3 Added	1	24-7	1	FO-1 FP-18 Blank.....	0
16-40.4 Blank Added.....	1	24-8 thru 24-12	0	FO-1 FP-19	1
16-41 and 16-42.....	1	24-13 thru 24-15.....	1	FO-1 FP-20 Blank.....	0
17-1 thru 17-7	1	24-16	0	FO-1 FP-21	0
17-8 Blank	1	24-17 thru 24-19.....	1	FO-1 FP-22 Blank.....	0
17-9 thru 17-11 Deleted	1	24-20 Blank.....	0	FO-1 FP-23	1
17-12 Blank Deleted	1	A-1.....	0	FO-1 FP-24 Blank.....	0
18-1 thru 18-27	1	A-2.....	1	FO-1 FP-25	0
18-28 Blank	1	A-3 and A-4.....	0	FO-1 FP-26 Blank.....	0
18-29 thru 18-123 Deleted	1	B-1 thru B-5	0	FO-1 FP-27	1
18-124 Blank Deleted.....	1	B-6 Blank	0	FO-1 FP-28 Blank.....	0
19-1 and 19-2	1	C-1 thru C-8.....	1	FO-1 FP-29	1
19-3.....	0	D-1 thru D-3.....	0	FO-1 FP-30 Blank.....	0
19-4 thru 19-6	1	D-4 and D-5	1	FO-1 FP-31	1
19-7	0	D-6 thru D-19	0	FO-1 FP-32 Blank.....	0
19-8 thru 19-15	1	D-20 thru D-23	1	FO-1 FP-33	1
19-16	0	D-24 thru D-31	0	FO-1 FP-34 Blank.....	0
19-17	1	D-32.....	1	FO-1 FP-35	1
19-18 Blank	0	D-33.....	0	FO-1 FP-36 Blank.....	0
20-1 and 20-2	1	D-34 thru D-39	1	FO-1 FP-37	1
20-3 and 20-4	0	D-40 thru D-66	0	FO-1 FP-38 Blank.....	0
20-5 and 20-6	1	D-67 and D-68	1	FO-1 FP-39	1
20-7 thru 20-10	0	D-69 thru D-71 Added	1	FO-1 FP-40 Blank.....	0
20-11	1	D-72 Blank Added	1	FO-1 FP-41	1
20-12 thru 20-39	0	E-1 thru E-8	0	FO-1 FP-42 Blank.....	0
20-40	1	F-1	0	FO-1 FP-43	1
20-41 thru 20-49	0	F-2 thru F-12.....	1	FO-1 FP-44 Blank.....	0
20-50	1	G-1	1	FO-1 FP-45	1
20-51 thru 20-57	0	G-2 Blank.....	0	FO-1 FP-46 Blank.....	0
20-58	1	H-1 thru H-4 Added	1	FO-1 FP-47	1
20-59 and 20-60.....	0	INDEX-1 thru INDEX-10	1	FO-1 FP-48 Blank.....	0
21-1 thru 21-9	0	Glossary-1	0	FO-1 FP-49	1
21-10 and 21-11.....	1	Glossary-2 Blank.....	0	FO-1 FP-50 Blank.....	0
21-12 thru 21-77	0	FO-1 FP-1.....	1	FO-1 FP-51	1
21-78 Blank	0	FO-1 FP-2 Blank	0	FO-1 FP-52 Blank.....	0
22-1	0	FO-1 FP-3.....	1	FO-1 FP-53	1
22-2 thru 22-9	1	FO-1 FP-4 Blank	0	FO-1 FP-54 Blank.....	0

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TECHNICAL MANUAL
 NO. 9-2320-365-34-1

HEADQUARTERS
 DEPARTMENTS OF THE ARMY
 AND THE AIR FORCE

TECHNICAL ORDER
 NO. 36A12-1B-1095-12-1

Washington, D.C., 17 June 1998

**Direct Support and General Support Maintenance Manual
 M1078 SERIES, 2 1/2-TON, 4 x 4,
 LIGHT MEDIUM TACTICAL VEHICLES (LMTV)**

VOLUME NO. 1 OF 2

MODEL	NSN	EIC
TRK, CAR., LMTV, M1078 W/WN W/O WN	2320-01-360-1898 2320-01-354-3385	BHH BHD
TRK, VAN, LMTV, M1079 W/WN W/O WN	2320-01-360-1891 2320-01-354-3384	BHG BHE
TRK, CHAS, LMTV, M1080 W/O WN	2320-01-353-9098	BHC
TRK, CAR., LMTV, AIR DROP, M1081 W/WN W/O WN	2320-01-360-1899 2320-01-355-3064	BHJ BHF

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