

**TM 9-2320-242-20-1**  
**T.O. 36A12-1A-2052-1-1**

---

**TECHNICAL MANUAL**  
**VOLUME 1 OF 3**  
**SCHEDULED MAINTENANCE**

**ORGANIZATIONAL LEVEL**

**TRUCK, CARGO:**

**1-1/4-TON, 6x6, M561 (NSN 2320-00-873-5407)**

**TRUCK, AMBULANCE:**

**1-1/4-TON, 6x6, M792 (NSN 2310-00-832-9907)**

Chapter 1  
Preventive  
Maintenance

Chapter 2  
Checkout,  
Alinement, and  
Adjustment

Chapter 3  
Lubrication

Chapter 4  
Scheduled  
Maintenance of  
Material Used  
in Conjunction  
with Major  
Items

Appendix A  
References

Appendix B  
Maintenance  
Allocation Chart

**NOTE:**

THE STYLE OF THIS TM IS  
EXPERIMENTAL. IT IS BEING TRIED  
BY THE ARMY ONLY ON  
A LIMITED BASIS

---

**DEPARTMENTS OF THE ARMY AND THE AIR FORCE**

**NOVEMBER 1980**



WARNING

EXHAUST GASES CAN BE DEADLY

Exposure to exhaust gases produces symptoms of headache, dizziness, loss of muscular control, apparent drowsiness, and coma. Permanent brain damage or death can result from severe exposure.

Carbon monoxide occurs in the exhaust fumes of fuel burning heaters and internal combustion engines, and becomes dangerously concentrated under conditions of inadequate ventilation. The following precautions must be observed to insure the safety of personnel whenever fuel burning heater(s) or engine of any vehicle is operated for maintenance purposes or tactical use.

Do not operate heater or engine of vehicle in an enclosed area unless it is adequately ventilated.

Do not idle engine for long periods without maintaining adequate ventilation in personnel compartments.

Do not drive any vehicle with inspection plates or cover plates removed unless necessary for maintenance purposes.

Be alert at all times during vehicle operation for exhaust odors and exposure symptoms. If either are present, immediately ventilate personnel compartments. If symptoms persist, remove affected personnel from vehicle and treat as follows: expose to fresh air; keep warm; do not permit physical exercise; if necessary, administer artificial respiration.

If exposed, seek prompt medical attention for possible delayed onset of acute lung congestion. Administer oxygen if available.

The best defense against exhaust gas poisoning is adequate ventilation.

WARNING

Serious or fatal injury to personnel may result  
if the following instructions are not complied with.

Use extreme care when removing radiator cap, especially when temperature gage shows above 180°F.

Always wear leather gloves when handling winch cable. Never allow cable to slip through hands. Do not operate winch with less than four turns of cable on drum.

Do not drive truck until the low air pressure warning buzzer is silent and the air pressure gage shows at least 65 PSI. This is the minimum pressure required for safe braking action.

Do not use hand throttle to drive the vehicle.

Do not park truck with front transmission gearshift lever in gear.

If your vehicle class number is greater than the bridge class number, do not cross.

WARNING - Cont

Do not place arms, legs, or objects between tractor and carrier. Any object hanging over this bulkhead may be crushed when truck articulates (turns at the joint).

Before backing up truck, make sure the rear and sides of the truck are clear of personnel and obstructions.

Deep fording may become a swimming operation due to increased water depth. Before fording, make sure that drain plugs are in place and bilge pump is working. Make sure all personnel have on life jackets.

Use extreme care while working in the area of the batteries. Grounding of the positive terminal to the truck frame can cause severe personnel injury and damage to equipment.

When used to carry flammables, explosives, or other hazardous material, equip truck with a fire extinguisher.

Dry cleaning solvent is flammable. Do not use near an open flame. Keep a fire extinguisher nearby when solvent is used. Use only in well-ventilated places. Failure to do this may result in injury to personnel and damage to equipment.

Do not use more than 30 psi of air pressure for drying parts. Eye shields must be worn when using compressed air. Eye injury can occur if eye shields are not used.

Smoking, sparks, open flame and hot or glowing objects are not allowed within 50 feet of work area when working on fuel system. Fuel may explode and cause injury to personnel and damage to equipment.

Do not open filler cap if engine is hot. Pressure will blow out very hot fluid and vapor. Personnel can be badly burned.

Do not spill cleaning compound on skin, clothing or truck paint. Cleaning compound has strong acid in it and will cause serious burns to personnel and damage to equipment.

Use eye shields to protect eyes when working with sealing compound. To prevent injury, do not allow skin or clothing to come in contact with sealing compound.

Be sure engine is cool before working on engine or engine components to avoid injury to personnel.

Do not get electrolyte on personnel or equipment. Personnel may be badly burned, and equipment may be damaged.

Wear rubber gloves and goggles while working with electrolyte to avoid serious injury from battery acid.

Before left or right battery is removed, ground cable to frame of truck must be taken off battery. If this is not done, a dangerous short circuit can result.

Wrap fuel lines in battery area with electrical tape to prevent short circuit. Short circuit can cause injury to personnel.

Do not let tools touch battery and truck. This will cause a direct short, arcing, tool will heat to red hot, and battery may explode. This can cause serious injury to personnel and damage to equipment.

WARNING - Cont

Be sure that truck is jacked and supported only at jacking or support points. Use of any other points may cause damage to truck or it may slip or fall off the jacks, causing injury to personnel.

Never work under truck with only a jack supporting truck. Weight of truck must be supported by safety jacks or support stands with capacity for weight of truck.

Springs under tension must be handled carefully or injury to personnel may result.



TECHNICAL MANUAL  
NO. 9-2320-242-20-1  
TECHNICAL ORDER  
NO. 36A12-1A-2052-1-1

DEPARTMENTS OF THE ARMY  
AND  
THE AIR FORCE  
Washington, DC, 3 November 1980

**TECHNICAL MANUAL**  
**VOLUME 1 OF 3**  
**SCHEDULED MAINTENANCE**  
**ORGANIZATIONAL LEVEL**  
**TRUCK, CARGO:**  
**1-1/4-TON, 6x6, M561 (NSN 2320-00-873-5407)**  
**TRUCK, AMBULANCE:**  
**1-1/4-TON, 6x6, M792 (NSN 2310-00-832-9907)**

**REPORTING OF ERRORS AND RECOMMENDING IMPROVEMENTS**

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedure, please let us know. Mail your letter, DA Form 2028 (Recommended Changes to Publication and Blank Forms), or DA Form 2028-2 located in the back of this manual direct to: Commander, U.S. Army Tank Automotive Materiel Readiness Command, ATTN: DRSTA-MB, Warren, Michigan 48090. A reply will be furnished to you.

**VOLUME 1 OF 3**

	Paragraph	Page
<b>CHAPTER 1. PREVENTIVE MAINTENANCE</b>		
General . . . . .	1-1	1-1
Procedures for Services and Inspections . . . . .	1-2	1-1
PMCS Procedures . . . . .	1-3	1-2

\*This manual, together with TM 9-2320-242-20-2-1, 3 November 1980; TM 9-2320-242-20-2-2, 3 November 1980; TM 9-2320-242-20-3-1, 3 November 1980; and TM 9-2320-242-20-3-2, 3 November 1980 supersedes TM 9-2320-242-20, 24 September 1976.

	Paragraph	Page
CHAPTER 2. CHECKOUT, ALINEMENT, AND ADJUSTMENT		
General.....	2-1	2-1
3. LUBRICATION		
General .....	3-1	3-1
Special Instructions.....	3-2	3-1
4. SCHEDULED MAINTENANCE OF MATERIAL USED IN CONJUNCTION WITH MAJOR ITEMS		
General .....	4-1	4-1
PMCS Procedures .....	4-2	4-1
APPENDIX A. REFERENCES .....		A-1
B. MAINTENANCE ALLOCATION CHART.....		B-1

VOLUME 2 OF 3

Part 1 of 2  
(TM 9-2320-242-20-2-1)

CHAPTER 1. GENERAL INFORMATION.....		1-1
2. TROUBLESHOOTING APPROACH .....		2-1
3. TROUBLESHOOTING INDEX.....		3-1
4. TEST EQUIPMENT PROCEDURES INDEX .....		4-1
5. TROUBLESHOOTING ROADMAPS .....		5-1
6. FAULT SYMPTOM INDEXES .....		6-1
7. SAMPLE TROUBLESHOOTING PROCEDURES.....		7-1
8. ENGINE SYSTEM TROUBLESHOOTING .....		8-1
9. ENGINE SYSTEM TROUBLESHOOTING SUMMARY....		9-1
10. CLUTCH SYSTEM TROUBLESHOOTING .....		10-1
11. CLUTCH SYSTEM TROUBLESHOOTING SUMMARY...		11-1
12. FUEL SYSTEM TROUBLESHOOTING.....		12-1
13. FUEL SYSTEM TROUBLESHOOTING SUMMARY .....		13-1
14. FUEL SYSTEM SUPPORT DIAGRAMS .....		14-1
15. FUEL SYSTEM TEST PROCEDURES .....		15-1
16. FUEL SYSTEM CHECKOUT PROCEDURES .....		16-1
17. EXHAUST SYSTEM TROUBLESHOOTING .....		17-1
18. EXHAUST SYSTEM TROUBLESHOOTING SUMMARY..		18-1
19. COOLING SYSTEM TROUBLESHOOTING.....		19-1
20. COOLING SYSTEM TROUBLESHOOTING SUMMARY ..		20-1
21. THERMOSTAT TEST PROCEDURES .....		21-1
22. COOLING SYSTEM CHECKOUT PROCEDURES.....		22-1
23. ELECTRICAL SYSTEM TROUBLESHOOTING.....		23-1

Part 2 of 2  
(TM 9-2320-242-20-2-2)

CHAPTER 24. ELECTRICAL SYSTEM TROUBLESHOOTING SUMMARY .....		24-1
25. ELECTRICAL SYSTEM SUPPORT DIAGRAMS .....		25-1
26. OPERATING AND PRELIMINARY PROCEDURES.....		26-1
27. MULTIMETER TEST PROCEDURES .....		27-1
28. COLD START SYSTEM CHECKOUT PROCEDURES ...		28-1



	Page
CHAPTER 29. ELECTRICAL SYSTEM CHECKOUT PROCEDURES.....	29-1
30. TRANSMISSION SYSTEM TROUBLESHOOTING.....	30-1
31. TRANSMISSION SYSTEM TROUBLESHOOTING SUMMARY.....	31-1
32. TRANSFER SYSTEM TROUBLESHOOTING.....	32-1
33. TRANSFER SYSTEM TROUBLESHOOTING SUMMARY.....	33-1
34. TRANSFER SYSTEM CHECKOUT PROCEDURES.....	34-1
35. PROPELLER SHAFT SYSTEM TROUBLESHOOTING.....	35-1
36. PROPELLER SHAFT SYSTEM TROUBLESHOOTING SUMMARY.....	36-1
37. FRONT AXLE SYSTEM TROUBLESHOOTING.....	37-1
38. FRONT AXLE SYSTEM TROUBLESHOOTING SUMMARY.....	38-1
39. FRONT AXLE SYSTEM SUPPORT DIAGRAMS.....	39-1
40. CENTER AXLE SYSTEM TROUBLESHOOTING.....	40-1
41. CENTER AXLE SYSTEM TROUBLESHOOTING SUMMARY.....	41-1
42. REAR AXLE SYSTEM TROUBLESHOOTING.....	42-1
43. REAR AXLE SYSTEM TROUBLESHOOTING SUMMARY.....	43-1
44. REAR AXLE SYSTEM CHECKOUT PROCEDURES.....	44-1
45. BRAKE SYSTEM TROUBLESHOOTING.....	45-1
46. BRAKE SYSTEM TROUBLESHOOTING SUMMARY.....	46-1
47. BRAKE SYSTEM SUPPORT DIAGRAMS.....	47-1
48. BRAKE SYSTEM CHECKOUT PROCEDURES.....	48-1
49. WHEEL SYSTEM TROUBLESHOOTING.....	49-1
50. WHEEL SYSTEM TROUBLESHOOTING SUMMARY.....	50-1
51. STEERING SYSTEM TROUBLESHOOTING.....	51-1
52. STEERING SYSTEM TROUBLESHOOTING SUMMARY.....	52-1
53. STEERING SYSTEM SUPPORT DIAGRAMS.....	53-1
54. FRAME AND TOWING SYSTEM TROUBLESHOOTING.....	54-1
55. FRAME AND TOWING SYSTEM TROUBLESHOOTING SUMMARY.....	55-1
56. SPRING AND SHOCK ABSORBER SYSTEM TROUBLESHOOTING.....	56-1
57. SPRING AND SHOCK ABSORBER SYSTEM TROUBLESHOOTING SUMMARY.....	57-1
58. CARRIER PERSONNEL HEATER SYSTEM TROUBLESHOOTING.....	58-1
59. CARRIER PERSONNEL HEATER SYSTEM TROUBLESHOOTING SUMMARY.....	59-1

	Page
CHAPTER 60. CARRIER PERSONNEL HEATER SYSTEM	
CHECKOUT PROCEDURES .....	60-1
61. CAB PERSONNEL HEATER SYSTEM	
TROUBLESHOOTING .....	61-1
62. CAB PERSONNEL HEATER SYSTEM TROUBLE-	
SHOOTING SUMMARY .....	62-1
63. CAB PERSONNEL HEATER SYSTEM TEST	
PROCEDURES .....	63-1
64. CAB PERSONNEL HEATER SYSTEM	
CHECKOUT PROCEDURES .....	64-1
65. ENGINE COOLANT HEATER SYSTEM	
TROUBLESHOOTING .....	65-1
66. ENGINE COOLANT HEATER SYSTEM	
TROUBLESHOOTING SUMMARY .....	66-1
67. ENGINE COOLANT HEATER SYSTEM TEST	
PROCEDURES .....	67-1
68. ENGINE COOLANT HEATER SYSTEM CHECK-	
OUT PROCEDURES .....	68-1
69. NONELECTRICAL GAGES SYSTEM	
TROUBLESHOOTING .....	69-1
70. NONELECTRICAL GAGES SYSTEM	
TROUBLESHOOTING SUMMARY.....	70-1
71. NONELECTRICAL GAGES SYSTEM SUPPORT	
DIAGRAMS .....	71-1
72. NONELECTRICAL GAGES SYSTEM	
CHECKOUT PROCEDURES .....	72-1

VOLUME 3 OF 3

Part 1 of 2

(TM 9-2320-242-20-3-1)

	Page
CHAPTER 1. GENERAL MAINTENANCE INFORMATION	1-1
2. ENGINE SYSTEM GROUP MAINTENANCE	
Section I. Scope .....	2-1
II. Engine Oil System.....	2-1
III. Exhaust Manifold .....	2-17
CHAPTER 3. CLUTCH SYSTEM GROUP MAINTENANCE	
Section I. Scope .....	3-1
II. Clutch Linkage Assembly.....	3-1
CHAPTER 4. FUEL SYSTEM GROUP MAINTENANCE	
Section I. Scope .....	4-1
II. Fuel Pump and Carrier Heater Fuel Pump .....	4-1
III. Air Cleaner.....	4-12
IV. Air Box Drains and Vent Lines .....	4-20
V. Fuel Tanks and Fuel Lines .....	4-23
VI. Fuel Filter.....	4-48
VII. Auxiliary Starter Relay Switch .....	4-73
VIII. Accelerator, Throttle, and Engine Stop Controls ..	4-77

	Page
CHAPTER 5. EXHAUST SYSTEM GROUP MAINTENANCE	
Section I. Scope .....	5-1
II. Exhaust Pipes and Muffler.....	5-1
CHAPTER 6. COOLING SYSTEM GROUP MAINTENANCE	
Section I. Scope .....	6-1
II. Radiator.....	6-1
III. Surge Tank .....	6-25
IV. Thermostat .....	6-32
V. Fan Assembly and Related Parts.....	6-46
VI. Cooling System Servicing .....	6-66
CHAPTER 7. ELECTRICAL SYSTEM GROUP MAINTENANCE	
Section I. Scope.....	7-1
II. Charging System.....	7-1
III. Starting System .....	7-15
IV. Instrument Panel Switches, Gages, and Lights.....	7-19
V. Lighting System .....	7-60
VI. Gage Sending Units.....	7-116
VII. Horn .....	7-124
VIII. Battery System .....	7-126
IX. Chassis Harnesses .....	7-168
X. Miscellaneous Items .....	7-290
CHAPTER 8. TRANSMISSION SYSTEM GROUP MAINTENANCE	
Section I. Scope .....	8-1
II. Transmission Control and Linkage Assembly .....	8-1
CHAPTER 9. TRANSMISSION TRANSFER SYSTEM GROUP MAINTENANCE	
Section I. Scope .....	9-1
II. Transmission Transfer Control and Linkage Assembly.....	9-1
CHAPTER 10. PROPELLER SHAFTS GROUP MAINTENANCE	
Section I. Scope .....	10-1
II. Tractor and Carrier Propeller Shaft Assemblies.....	10-1
CHAPTER 11. FRONT, CENTER, AND REAR AXLE GROUP MAINTENANCE	
Section I. Scope .....	11-1
II. Drive Axle Assemblies .....	11-1
III. Tractor and Carrier Suspension Systems .....	11-27
Part 2 of 2 (TM 9-2320-242-20-3-2)	
CHAPTER 12. BRAKE SYSTEM GROUP MAINTENANCE	
Section I. Scope .....	12-1
II. Handbrake Assembly.....	12-1
III. Service Brake .....	12-18
IV. Brake Hydraulic System.....	12-51
V. Brake Pedal .....	12-127
VI. Compressed Air System .....	12-144

	Page
CHAPTER 13. WHEEL SYSTEM GROUP MAINTENANCE	
Section I. Scope .....	13-1
II. Tires.....	13-1
III. Wheels.....	13-14
CHAPTER 14. STEERING SYSTEM GROUP MAINTENANCE	
Section I. Scope .....	14-1
II. Tractor and Carrier Steering System .....	14-1
III. Front and Rear Steering Gear Box Assemblies.....	14-116
CHAPTER 15. FRAME AND TOWING ATTACHMENTS GROUP MAINTENANCE	
Section I. Scope .....	15-1
II. Pintles and Towing Attachments .....	15-1
III. Rubber Bumpers .....	15-8
CHAPTER 16. SPRINGS AND SHOCK ABSORBERS GROUP MAINTENANCE	
Section I. Scope .....	16-1
II. Springs .....	16-1
III. Shock Absorbers .....	16-14
CHAPTER 17. BODY, CAB, AND HOOD GROUP MAINTENANCE	
Section I. Scope .....	17-1
II. Tractor Body Components .....	17-1
III. Tractor Seats.....	17-71
IV. Carrier Body Components .....	17-74
CHAPTER 18. BODY, CHASSIS, AND ACCESSORY ITEMS GROUP MAINTENANCE	
Section I. Scope .....	18-1
II. Carrier Canopy and Top Bow Assemblies .....	18-1
III. Body and Chassis Accessories .....	18-26
IV. Bilge Pump System.....	18-77
V. Data and Instruction Plates .....	18-88
CHAPTER 19. NONELECTRICAL GAGES GROUP MAINTENANCE	
Section I. Scope .....	19-1
II. Nonelectrical Gages .....	19-1
CHAPTER 20. MAINTENANCE OF MATERIAL USED IN CONJUNCTION WITH MAJOR ITEMS	
Section I. Scope .....	20-1
II. 100-Ampere Alternator Kit.....	20-1
III. Winterization Kit .....	20-18
IV. Arctic Kit .....	20-105
V. Decontamination Apparatus Kit .....	20-174
APPENDIX A. REFERENCES .....	A-1
INDEX .....	Index 1

# CHAPTER 1

## PREVENTIVE MAINTENANCE

---

### NOTE

All references to TM 9-2320-242-10 in this publication apply to the series.

1-1. GENERAL. Preventive maintenance checks and services (PMCS) are done to find and to fix problems before they can cause major damage to the vehicle. These checks and services are done by organizational maintenance personnel every six months or 6,000 miles, whichever comes first. To save time and make sure that all items are checked, do the PMCS in the order given in the tables. Write down any problems on the proper forms. Refer to TM 38-750.

1-2. PROCEDURES FOR SERVICES AND INSPECTIONS. The following general procedures are for organizational maintenance PMCS and for all inspections. They are just as important as the specific procedures. In addition to the specific procedures, any of these general procedures that apply to PMCS items will be done automatically.

a. Check to see if items are in good condition, properly assembled or stowed, not leaking, loose, or excessively worn, and properly lubricated.

(1) Checking that items are in good condition is usually a visual check to see if the items are safe and usable. Good condition means not bent or twisted, not chafed or burred, not broken or cracked, not bare or frayed, not dented or collapsed, not torn or cut, not rusted or rotted, and not leaking.

(2) Checking that items are properly assembled or stowed usually is a visual inspection also. See if the items are in normal positions on the vehicle, and if all parts are present.

(3) Excessively worn means worn beyond usable limits and likely to fail before the next scheduled inspection. This includes too much play (lash or lost motion) in linkages and mating parts. This also includes unreadable markings, data and caution plates, and other printed matter.

b. The specific PMCS procedures do not say "adjust if necessary" or "replace if necessary." It is understood that whenever inspection shows the need for adjustment, repairs, or replacement that work will be done.

c. Any special cleaning instructions for certain items are in the maintenance sections for those items. General cleaning instructions are as follows:

### WARNING

Dry cleaning solvent is flammable. Do not use near an open flame. Keep a fire extinguisher nearby when solvent is used. Use only in well-ventilated places. Failure to do this may result in injury to personnel and damage to equipment.

(1) Use dry cleaning solvent, type II (SD-2), Fed. Spec P-D-680 to clean or wash grease or oil from all metal parts.

(2) A solution of one part grease cleaning compound to four parts of dry cleaning solvent may be used for cleaning grease and oil from engine blocks, engine compartments, and other parts.

(3) After cleaning, rinse and dry parts well. Coat all polished metal surfaces with a light grade of oil to stop rust.

(4) When putting in new parts, take off any rust-preventive compound or protective grease. For those parts needing lubrication, refer to Lubrication Order LO 9-2320-242-12.

d. To stop mildew from forming, shake out and air canvas covers often for several hours at a time. Have any loose grommets or rips in the fabric fixed right away. Failure to do so may cause minor damage to become major damage. Clean mildew from canvas with a dry brush. If water is needed to wash off dirt, it must not be used until all mildew has been brushed off. If mildew is present, carefully check the canvas for weak spots. If weak spots are found, the canvas is probably not worth retreatment. Otherwise, have the canvas re-treated. Clean off oil and grease with issue soap and warm water. Rinse well with clean water and dry.

e. Steel nameplates, caution plates, and instruction plates may rust rapidly. If rusty, clean plates well and coat heavily with clear lacquer. Refer to TM 43-0139.

f. General precautions for cleaning are in the maintenance sections.

g. The vehicle operator usually helps organizational maintenance personnel in doing the PMCS. The operator should make sure the vehicle is fairly clean. However, the vehicle should not be washed right before inspection. Certain problems, such as loose parts or oil leaks may not show up after a wash.

h. The only organizational maintenance services are those general procedures listed below, unless approval is given for other services.

(1) Adjust. Make all adjustments by following the procedures given in this manual or in bulletins.

(2) Clean. Clean items by following the general cleaning procedures given in para c., above.

(3) Service. Normally, service includes filling the battery with water, draining and refilling items with oil, and changing or cleaning the oil filter, air cleaner or cartridges.

(4) Tighten. Tighten items with enough force on the wrench handle to tighten according to good mechanical practice. Do not over tighten; this may strip threads or cause distortion. Tightening includes using lockwashers, locknuts, lock wire, or cotter pins when needed. Use a torque wrench when the procedure calls for one.

(5) Modification work order application. Write all needed modification work orders (MWO) for the vehicle on DA Form 2408-5.

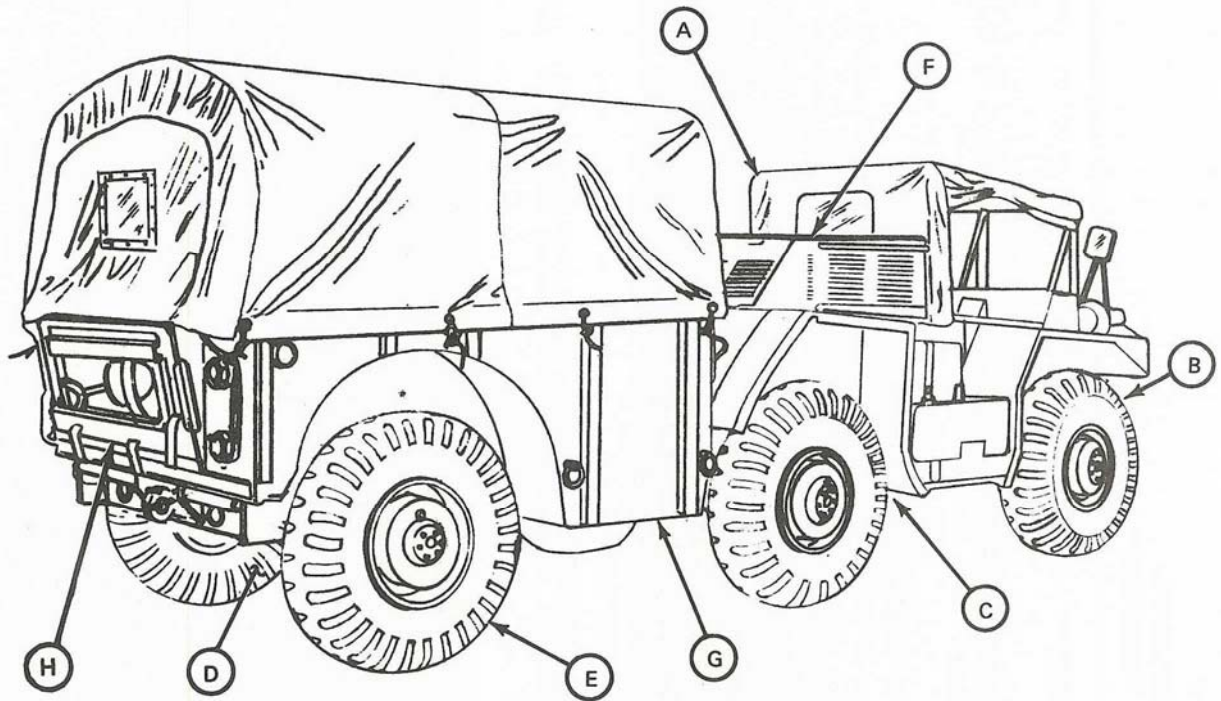
i. When it is hard to do all of the PMCS procedures at one time, they can sometimes be done in parts. If possible, plan to do all the procedures within one week. All available time at halts and in bivouac areas must be used, if needed, to make sure that the PMCS is done.

1-3. PMCS PROCEDURES. Figure 1-1 gives location of components and table 1-1 gives the PMCS procedures for the M561 Cargo Truck and M792 Ambulance Truck. The PMCS table is made up of the following columns:

a. Item No. Column. This column gives the order in which the checks and services are to be done. Use these item numbers when filling out equipment inspection and maintenance forms.

b. Item To Be Inspected Column. This column names the item or system to be checked or serviced.

c. Blank Column. You should ignore this column because it is not required for Organizational PMCS. Contents were deleted, at the time of printing, due to policy changes.



TA 045695

- |  |  |
|--|--|
| <p>A. Controls</p> <p>B. Front axle assembly<br/>Front differential<br/>Winch kit</p> <p>C. Transmission<br/>Transfer<br/>Propeller shafts<br/>Center axle assembly<br/>Center differential</p> <p>D. Rear axle assembly<br/>Rear differential</p> | <p>E. Wheels and tires</p> <p>F. Air cleaner assembly<br/>Oil filter<br/>Fuel filters and fuel lines<br/>Cold start system<br/>Heater fuel filters</p> <p>G. Body and frame</p> <p>H. Carrier tailgate</p> |
|--|--|

Figure 1-1. Preventive Maintenance Locators.

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule

Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
1		<p style="text-align: center;">BEFORE ROAD TEST</p> <p>Check that all before operation checks listed in TM 9-2320-242-10 have been done.</p>	
2	Lubrication	<p>Refer to Lubrication Order LO 9-2320-242-12 for lubrication of truck.</p> <p style="text-align: center;">DURING ROAD TEST</p>	
3	THROTTLE control	<p>1. Check travel and free movement of THROTTLE control (1) by watching accelerator pedal (2). When THROTTLE control is pulled all the way out, accelerator pedal will be down against stop screw. Check that THROTTLE control does not bind or stick in any position.</p> <div data-bbox="727 852 1310 1119" style="text-align: center;"> <p style="text-align: right; font-size: small;">TA 080545</p> </div> <p>2. Start engine. Refer to TM 9-2320-242-10.</p> <p>3. Check that THROTTLE control (1) has full travel from open position to closed position. Check that THROTTLE control does not bind or stick in any position.</p>	



Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

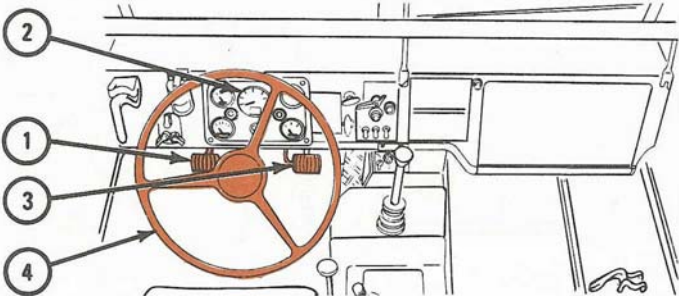
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
4	Clutch	<p>1. Push down on clutch pedal (1) and listen for a bad clutch release bearing or other noises.</p>  <p>2. Check that free travel of clutch pedal (1) is about 3/4 to 1-1/8-inches.</p> <p>3. Put vehicle in motion and check that clutch does not slip, grab, or chatter.</p>	
5	Brake system	<p>1. Raise vehicle speed until speedometer (2) reads about 40 mph and brake to stop. Check that vehicle stops smoothly without sidepull, chatter, or unusual noises.</p> <p>2. Check that brake pedal (3) does not bind.</p> <p>3. Check that brake pedal (3) stops about half-way above floor.</p>	
6	Steering system	<p>1. Check that free play in steering wheel (4) is not more than one inch.</p>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
6 (cont)		<ol style="list-style-type: none"> <li>2. Check that there is no shimmy, wander, or pull to one side.</li> <li>3. Turn steering wheel (4) through full range and check that there is no binding in steering system.</li> </ol>	
7	Transmission and transfer	<ol style="list-style-type: none"> <li>1. Shift TRANSMISSION selector lever (1), TRANSFER selector lever (2), and TWO or SIX WHEEL DRIVE selector lever (3) into all positions. Check that there is no unusual stiffness when shifting and no slipping out of gear.</li> </ol> <div data-bbox="635 744 1324 1105" style="text-align: center;"> </div> <p data-bbox="1201 1125 1316 1146" style="text-align: right;">TA 080547</p> <ol style="list-style-type: none"> <li>2. Be alert for unusual noises or vibrations in power train.</li> </ol>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
8	Engine power	<ol style="list-style-type: none"> <li>1. Check that truck has normal power and acceleration in all speeds.</li> <li>2. Be alert for unusual engine noises.</li> </ol>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

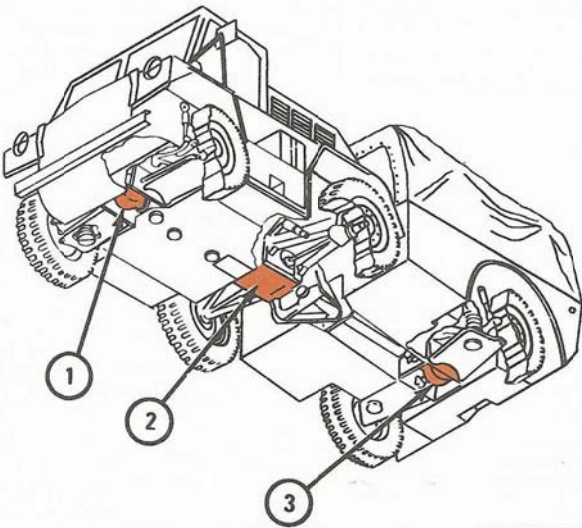
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
9	Differentials	<p style="text-align: center;">AFTER ROAD TEST</p> <ol style="list-style-type: none"><li>1. Stop engine. Refer to TM 9-2320-242-10.</li></ol> <p style="text-align: center;"><u>WARNING</u></p> <p>Use care when touching differentials (1, 2, and 3) right after road test. They may be very hot and cause severe burns to personnel.</p> <ol style="list-style-type: none"><li>2. Right after road test, carefully feel differentials (1, 2, and 3). If differentials are very hot they may be bad or not properly lubricated.</li></ol>  <p style="text-align: right;">TA 080548</p>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

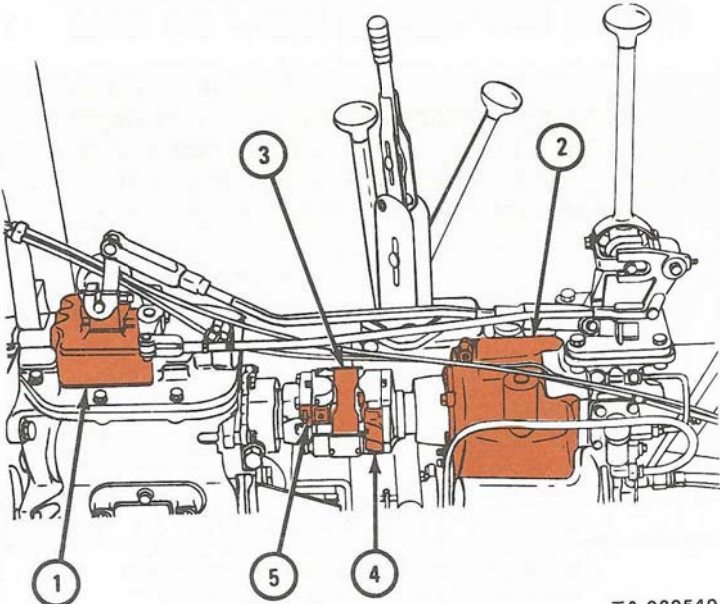
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
10	Transmission and transfer	<p>1. Remove console assembly. Refer to Vol 3, chapter 17, para 17-15.</p> <p style="text-align: center;"><b>WARNING</b></p> <p>Use care when touching transmission (1) right after road test. It may be very hot and cause severe burns to personnel.</p> <p>2. Carefully feel transmission (1). If it is hot it may be bad or not properly lubricated.</p> <div style="text-align: center;">  <p style="text-align: right;">TA 080549</p> </div>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
10 (cont)		<p style="text-align: center;">NOTE</p> <p>It is normal for transfer (2) to be hot after vehicle has been run for a while. If it is properly lubricated and did not make noise it is good.</p>	
11	Tractor propeller shaft	<ol style="list-style-type: none"> <li>3. Check that transmission (1) and transfer (2) are not leaking.</li> <li>4. Check that transmission-transfer coupling (3) is not damaged. Shake coupling from side to side and up and down. There should be no noise or looseness in coupling universal joints (4 and 5).</li> <li>1. Check that tractor propeller shaft (1) is not damaged. Tractor propeller shaft mounts to transfer (2) and center differential (3) below transmission (4).</li> </ol>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

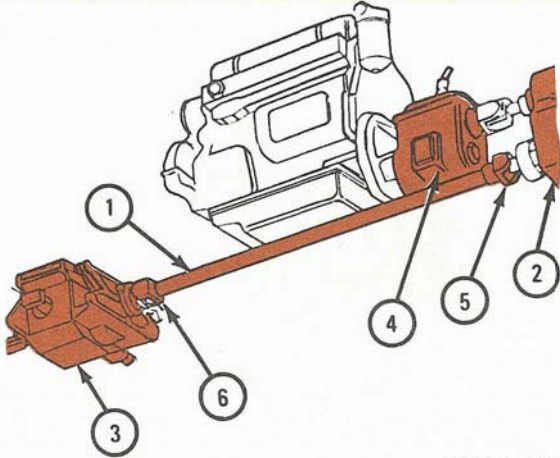
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
11 (cont)		 <p style="text-align: center;">TA 080550</p> <ol style="list-style-type: none"> <li>2. Shake tractor propeller shaft (1) from side to side and up and down. There should be no noise or looseness in tractor propeller shaft universal joints (5 and 6).</li> <li>3. Replace console assembly. Refer to Vol 3, chapter 17, para 17-15.</li> </ol>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

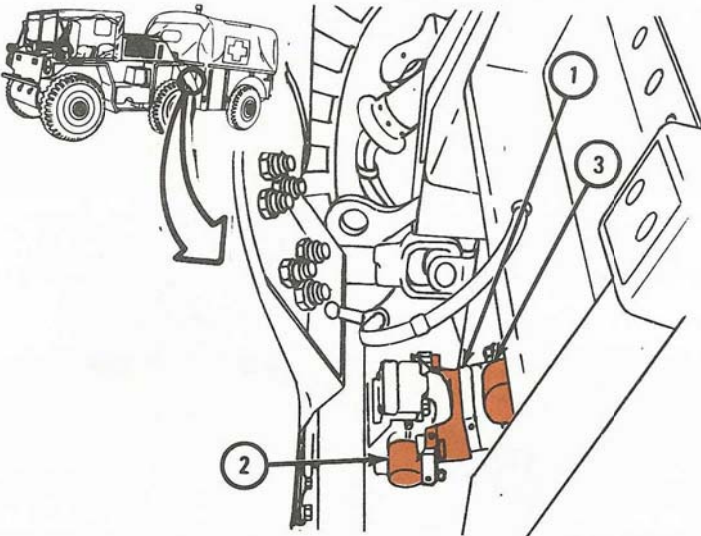
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
12	Carrier coupling	<p data-bbox="717 263 1385 393">Check that carrier coupling (1) is not damaged. Shake coupling from side to side and up and down. There should be no noise or looseness in coupling universal joints (2 and 3).</p>  <p data-bbox="1242 1047 1351 1067">TA 080551</p> <p>The diagram shows a side view of a truck's rear axle assembly. A curved arrow indicates the movement of the carrier coupling. Callout 1 points to the top of the coupling, callout 2 points to a universal joint, and callout 3 points to another universal joint. A small inset drawing shows the truck from a rear perspective with an arrow pointing to the coupling area.</p>	



Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

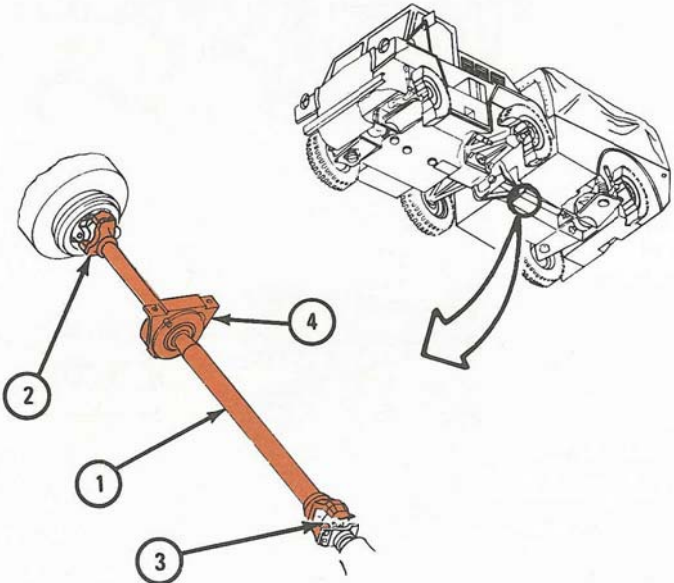
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
13	Carrier propeller shaft	<p>1. Check that carrier propeller shaft (1) is not damaged. Shake propeller shaft from side to side and up and down. There should be no noise or looseness in universal joints (2 and 3).</p>  <p>TA 080552</p> <p>2. Check that carrier propeller shaft center bearing (4) is not worn. Shake propeller shaft (1) near center bearing. There should be no noise and very little looseness in center bearing.</p>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

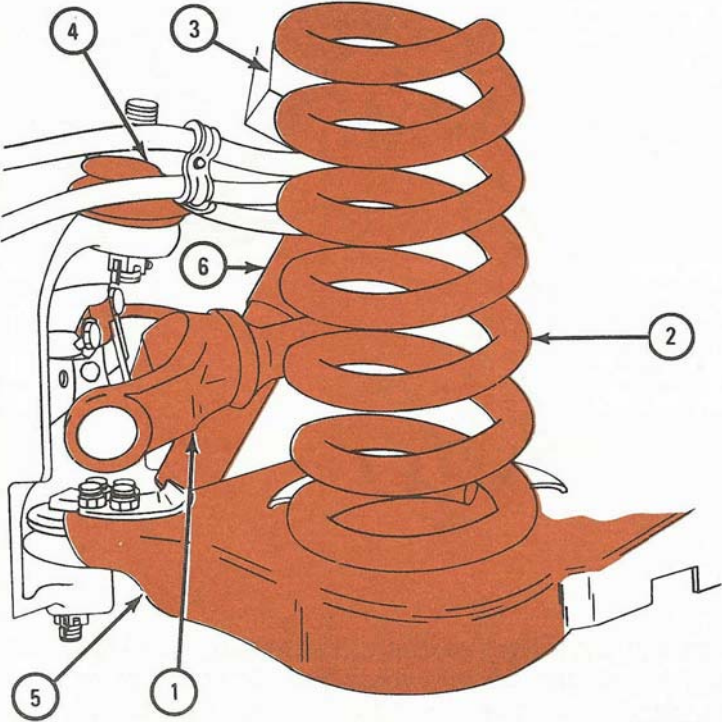
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
14	Front and rear axle and suspension assemblies	<p>1. Check that drive shaft (1) is not damaged, and that drive shaft universal joints are not worn or loose.</p>  <p>TA 045699</p>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
14 (cont)		<ol style="list-style-type: none"> <li>2. Check that spring (2) and resilient mount jounce bumper (3) are not loose or damaged.</li> <li>3. Check that upper suspension arm (4) and lower suspension arm (5) are not loose or damaged.</li> <li>4. Check that shock absorber (6) is not leaking, loose, or damaged.</li> </ol>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

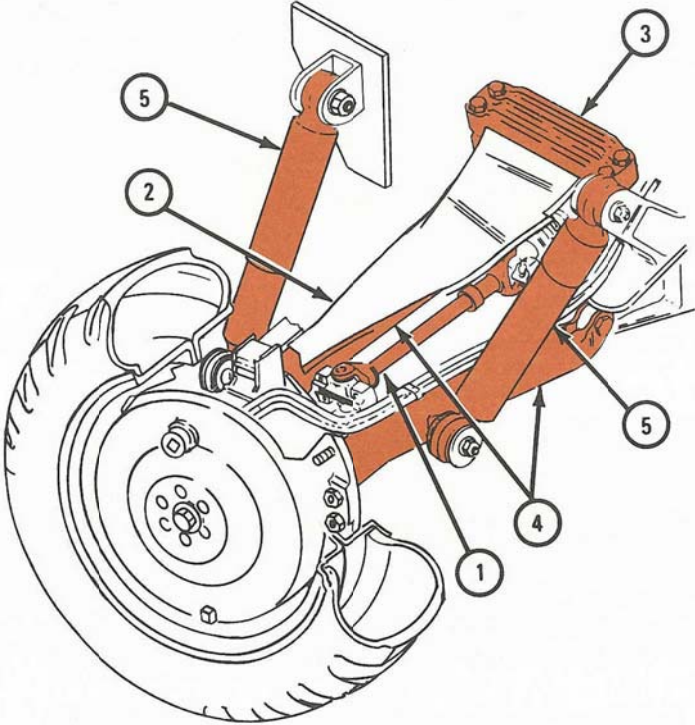
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
15	Center axle and suspension assembly	<p>1. Check that drive shaft (1) is not damaged, and that drive shaft universal joints are not worn or loose.</p>  <p>TA 045700</p>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
15 (cont)		<ol style="list-style-type: none"> <li>2. Check that spring (2), suspension bracket (3), and suspension arms (4) are not loose or damaged.</li> </ol>	
16	Brake system	<ol style="list-style-type: none"> <li>3. Check that shock absorbers (5) are not leaking, loose, or damaged.</li> <li>1. Remove brake drums. Refer to Vol 3, chapter 12, para 12-7.</li> <li>2. Check that brake shoe linings (1 and 2) are not worn down to rivets.</li> </ol> <div data-bbox="711 816 1344 1365" style="text-align: center;"> <p style="text-align: center;">TA 080553</p> </div>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

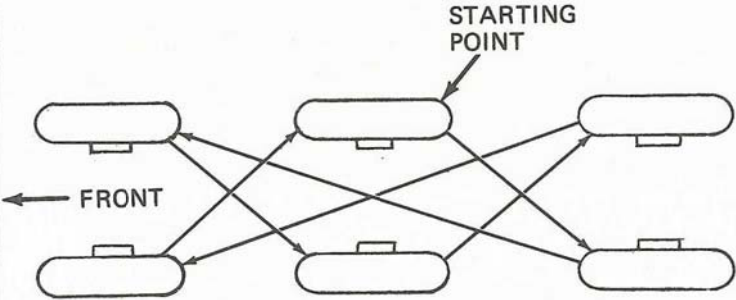
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
16 (cont)		<ol style="list-style-type: none"> <li>3. Check that hydraulic line (3) and air line (4) are not leaking, loose, or damaged.</li> <li>4. Replace brake drums. Refer to Vol 3, chapter 12, para 12-7.</li> <li>5. Adjust brakes. Refer to Vol 3, chapter 12, para 12-5.</li> </ol>	
17	Wheel and tire assemblies	<ol style="list-style-type: none"> <li>1. Check that tire wear is not uneven. If tires show uneven wear check wheel alignment. Refer to Vol 3, chapter 14, para 14-3.</li> <li>2. Every other semiannual check rotate tires. Change wheel and tire assemblies from side to side and front to rear as shown in following diagram. Refer to TM 9-2320-242-10 for removal and replacement procedures.</li> </ol> <div style="text-align: center;">  <p style="text-align: right;">TA 045696</p> </div>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

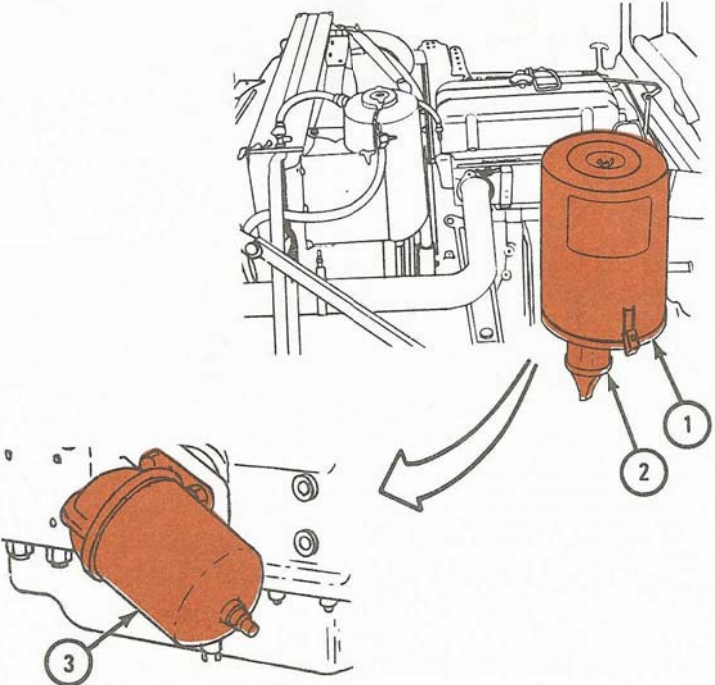
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
18	Air cleaner assembly	<ol style="list-style-type: none"> <li>1. Open engine cover. Refer to TM 9-2320-242-10.</li> <li>2. Check that air cleaner assembly (1) and vacuator valve (2) are not loose or damaged.</li> </ol>  <p>The diagram illustrates the location of the air cleaner assembly and vacuator valve on an engine. The main drawing shows the engine with the air cleaner assembly (1) and vacuator valve (2) highlighted in orange. A callout drawing shows a close-up of the vacuator valve (3) with its mounting points. An arrow points from the callout to the main drawing.</p> <p style="text-align: right;">TA 080554</p>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

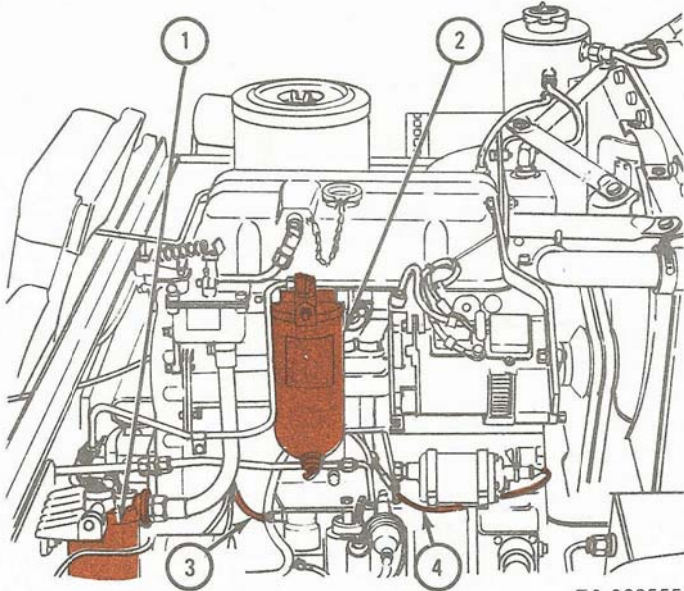
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
19	Oil filter	Check that oil filter (3) is not leaking, loose, or damaged.	
20	Fuel filters and fuel lines	<p>Check that fuel filters (1 and 2) and all fuel lines are not leaking, loose, or damaged. Refer to Vol 2, chapter 14, fig. 14-1 for locations of fuel lines.</p>  <p style="text-align: right;">TA 080555</p>	
21	Cold start system	1. Check that cold start system tubing (3) and wiring (4) are not loose or damaged.	



Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

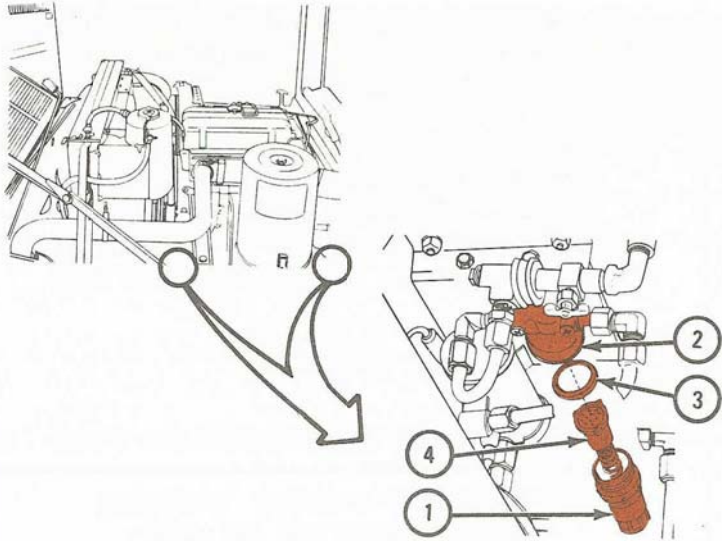
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
22	Heater fuel filter(s) (M792 personnel heater and winteri- zation kits only)	<p style="text-align: center;"><u>WARNING</u></p> <p>To prevent fire or explosion, smoking, flame, sparks, and glowing or hot objects are not allowed near vehicle during maintenance of fuel system components. Failure to do this may cause severe burns to personnel.</p> <p>Clean heater fuel filter(s) as follows:</p> <ol style="list-style-type: none"> <li>1. Put a cup under fuel filter assembly.</li> <li>2. Unscrew sediment bowl (1) from head (2).</li> </ol>  <p style="text-align: right;">TA 045698</p>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
22 (cont)		<p>3. Take out packing (3) and filter element (4).</p> <p style="text-align: center;"><u>WARNING</u></p> <p>Dry cleaning solvent, SD-2, used to clean parts is potentially dangerous to personnel and property. Do not use near an open flame or excessive heat. Flash point of solvent is 138°F.</p> <p>4. Clean filter element (4) with dry cleaning solvent. If filter element (4) can not be properly cleaned, use a new one.</p> <p>5. Put filter element (4) in sediment bowl (1), put packing (3) in place, and screw sediment bowl (1) into head (2).</p> <p>6. Start engine and heater. Refer to TM 9-2320-242-10.</p> <p>7. Check that fuel filter assembly is not leaking.</p> <p>8. Shut down heater and engine. Refer to TM 9-2320-242-10.</p> <p>9. Empty cup into gasoline can.</p> <p>10. Close engine cover. Refer to TM 9-2320-242-10.</p>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

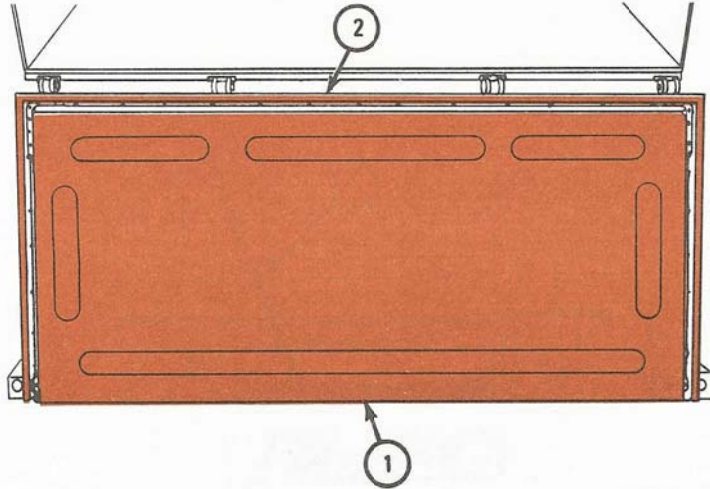
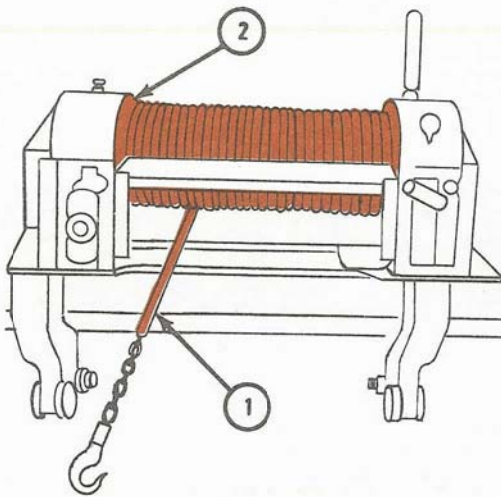
Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
23	Body	<ol style="list-style-type: none"> <li>1. Check that body is not damaged and has no broken welds or beams.</li> <li>2. Using a wrench, tighten all mounting bolts.</li> <li>3. Open carrier tailgate (1).</li> </ol>  <p style="text-align: right;">TA 080556</p> <ol style="list-style-type: none"> <li>4. Check that carrier tailgate (1) and seal (2) are not damaged.</li> <li>5. Close carrier tailgate (1).</li> <li>6. Check all tractor and carrier electrical equipment for proper operation. Refer to TM 9-2320-242-10.</li> <li>7. Check that all exposed wiring is not worn, frayed, or otherwise damaged.</li> </ol>	

Table 1-1. Organizational Preventive Maintenance Checks and Services Semiannual Schedule - Cont

Item No.	Item To Be Inspected	Procedures Check for and Have Repaired, Replaced, Adjusted as Necessary	
24	Winch kit	<p>1. Unwind winch cable (1). Refer to TM 9-2320-242-10.</p>  <p style="text-align: center;">TA 080557</p> <p>2. Check that winch cable (1) is not kinked and has no broken wires or broken/loose clamps.</p> <p>3. Wind cable (1) back on drum (2). Refer to TM 9-2320-242-10.</p> <p>4. Tell direct support maintenance to adjust winch safety brake.</p>	

## CHAPTER 2

### CHECKOUT, ALINEMENT, AND ADJUSTMENT

---

2-1. GENERAL. There are no scheduled checkout, alinement, or adjustment procedures to be done at organizational level of maintenance other than those in the PMCS table.

## CHAPTER 3

### LUBRICATION

---

3-1. GENERAL. Refer to Lubrication Order LO 9-2320-242-12 for lubrication of the truck.

3-2. SPECIAL INSTRUCTIONS. There are no special lubrication instructions for trucks operating under unusual conditions other than those given in LO 9-2320-242-12.

## CHAPTER 4

### SCHEDULED MAINTENANCE OF MATERIAL USED IN CONJUNCTION WITH MAJOR ITEMS

---

4-1. GENERAL. These preventive maintenance checks and services (PMCS) cover the special purpose kits supplied as part of the truck. The special purpose kits include the winch kit, slave receptacle kit, surfing kit, winterization kit (-25°), arctic kit, and arctic closure winterization kit.

4-2. PMCS PROCEDURES. Refer to TM 9-2320-242-10 for preventive maintenance checks and services for the special purpose kits.



## APPENDIX A REFERENCES

### A-1. PUBLICATION INDEXES AND GENERAL REFERENCE.

Indexes should be checked often for the latest changes or revisions of references given in this appendix and for new publications on materiel covered in this technical manual.

a. Military Publications Indexes.

- Index of Army Motion Pictures  
and Related Audio-Visual Aids . . . . . DA Pam 108-1
- Index of Administrative Publications . . . . . DA Pam 310-1
- Index of Blank Forms . . . . . DA Pam 310-2
- Index of Doctrinal Training and  
Organizational Publications . . . . . DA Pam 310-3

Military Publications:

- Index of Technical Manuals, Technical  
Bulletins, Supply Bulletins, and  
Lubrications Orders . . . . . DA Pam 310-4
- Index of Supply Catalogs and  
Supply Manuals (excluding types  
7, 8, and 9) . . . . . DA Pam 310-6
- Index of Modification Work Orders . . . . . DA Pam 310-7
- Common Tools and Equipment  
Supply Manuals . . . . . DA Supply Manuals  
SC 4910-95-CL-A01, A02,  
A50, A63, A67, A68, A72,  
A73, and A74.  
SC 4910-95-CL-A31

b. General Reference.

- Authorized Abbreviations and Brevity  
Codes . . . . . AR 310-50
- Dictionary of United States Army Terms . . . . . AR 310-25

A-2. FORMS.

The following forms are for this materiel (refer to DA pamphlet 310-2 for index of blank forms and to TM 38-750 for explanation of their use).

Recommended Changes to Publications .....	DA Form 2028
Maintenance Request	DA Form 2407
Maintenance Request - Continuation Sheet .....	DA Form 2407-1
Equipment Log Assembly (Records) .....	DA Form 2408
Processing and Deprocessing Records for Shipment, Storage, and Issue of Vehicles and Spare Engines .....	DD Form 1397

A-3. OTHER PUBLICATIONS.

a. Vehicle.

Lubrication Order .....	LO 9-2320-242-12
Operator's Manual .....	TM 9-2320-242-10
Direct Support and General Support Maintenance Manual .....	TM 9-2320-242-34
Organizational Maintenance Repair Parts and Special Tool List .....	TM 9-2320-242-20P
Direct Support and General Support Maintenance Repair Parts and Special Tool List .....	TM 9-2320-242-34P

b. General.

Color, Marking and Camouflage Painting of Military Vehicles, Construction Equipment, and Materials Handling Equipment .....	TB 43-0209
Chemical, Biological, and Radiological (CBR) Decontamination .....	TM 3-220
Chemical, Biological, Radiological, and Nuclear Defense .....	FM 21-40
Rigging .....	TM 5-725
Accident Reporting and Records .....	AR 385-40
Basic Cold Weather Manual .....	FM 31-70
Cooling System: Tactical Vehicles .....	TM 750-254
Manual for the Wheeled Vehicle Driver .....	FM 21-305
Army Motor Transport Units and Operations .....	FM 55-30



Materials Used for Cleaning, Preserving,  
Abrading, and Cementing Ordnance  
Materiel and Related Materials Including  
Chemicals ..... TM 9-247

Painting Instructions for Field Use ..... TM 43-0139

Rustproofing ..... TB 43-0213



## APPENDIX B

# MAINTENANCE ALLOCATION CHART

---

### Section I. INTRODUCTION

#### B-1. GENERAL.

a. This section provides a general explanation of all maintenance and repair functions authorized at various maintenance levels.

b. The Maintenance Allocation Chart (MAC) in section II designates overall responsibility for the performance of maintenance functions on the identified end item or component. The implementation of the maintenance functions upon the end item or component will be consistent with the assigned maintenance functions.

c. Section III lists the special tools and test equipment required for each maintenance function as referenced from section II.

#### B-2. MAINTENANCE FUNCTIONS.

a. Inspect. To determine the serviceability of an item by comparing its physical, mechanical and/or electrical characteristics with established standards through examination.

b. Test. To verify serviceability and detect incipient failure by measuring the mechanical or electrical characteristics of an item and comparing those characteristics with prescribed standards.

c. Service. Operations required periodically to keep an item in proper operating condition, i.e., to clean (decontaminate), to preserve, to drain, to paint, or to replenish fuel, lubricants, hydraulic fluids, or compressed air supplies.

d. Adjust. To maintain, within prescribed limits, by bringing into proper or exact position, or by setting the operating characteristics to specified parameters.

e. Align. To adjust specified variable elements of an item to bring about optimum or desired performance.

f. Calibrate. To determine and cause corrections to be made or to be adjusted on instruments or test measuring and diagnostic equipments used in precision measurement. Consists of comparisons of two instruments, one of which is a certified standard of known accuracy, to detect and adjust any discrepancy in the accuracy of the instrument being compared.

g. Install. The act of emplacing, seating, or fixing into position an item, part, or module (component or assembly) in a manner to allow the proper functioning of an equipment or system.

h. Replace. The act of substituting a serviceable like type part, subassembly, or module (component or assembly) for an unserviceable counterpart.

i. Repair. The application of maintenance services<sup>1</sup> or other maintenance actions<sup>2</sup> to restore serviceability to an item by correcting specific damage, fault, malfunction, or failure in a part, subassembly, module (component or assembly), end item, or system.

j. Overhaul. That maintenance effort (services/actions) necessary to restore an item to a completely serviceable/operational condition as prescribed by maintenance standards (i.e., DMWR) in appropriate technical publications. Overhaul is normally the highest degree of maintenance performed by the Army. Overhaul does not normally return an item to like new condition.

k. Rebuild.<sup>3</sup> Consists of those services/actions necessary for the restoration of unserviceable equipment to a like new condition in accordance with original manufacturing standards. Rebuild is the highest degree of materiel maintenance applied to Army equipment. The rebuild operation includes the act of returning to zero those age measurements (hours/miles), etc.) considered in classifying Army equipments/components.

B-3. COLUMN ENTRIES USED IN THE MAC.

a. Column 1, Group Number, Column 1 lists group numbers, the purpose of which is to identify components, assemblies, subassemblies, and modules with the next higher assembly.

b. Column 2, Component/Assembly. Column 2 contains the names of components, assemblies, subassemblies, and modules for which maintenance is authorized.

c. Column 3, Maintenance Functions. Column 3 lists the functions to be performed on the item listed in column 2. (For detailed explanation of these functions, see para B-2.)

d. Column 4, Maintenance Level. Column 4 specifies, by the listing of a "work time" figure in the appropriate subcolumn(s), the lowest level of maintenance authorized to perform the function listed in column 3. This figure represents the active time required to perform the maintenance function at the indicated level of maintenance. If the number or complexity of the tasks within the listed maintenance function vary at different maintenance levels, appropriate "work time" figures will be shown for each level. The number of manhours specified by the "work time" figure represents the average time required to restore an item (assembly, subassembly, component, module, end item, or system) to a serviceable condition under typical field operating conditions. This time includes preparation time, troubleshooting time, and quality assurance/quality control time in addition to the time required to perform the specific tasks identified for the maintenance functions authorized in the maintenance allocation chart. The symbol designations for the various maintenance levels are as follows:

- C ..... Operator or crew
- O ..... Organization maintenance
- F ..... Direct support maintenance
- H ..... General support maintenance
- D ..... Depot maintenance

e. Column 5, Tools and Equipment. Column 5 specifies, by code, those common tool sets (not individual tools) and special tools, test, and support equipment required to perform the designated function.

<sup>1</sup>Services—inspect, test, service, adjust, aline, calibrate, or replace.

<sup>2</sup>Action—welding, grinding, riveting, straightening, facing, remachining, or resurfacing.

**B-4. COLUMN ENTRIES USED IN TOOL AND TEST EQUIPMENT REQUIREMENTS.**

- a. Column 1, Tool or Test Equipment Reference Code. The tool and test equipment reference code correlates with a maintenance function on the identified end item or component.
- b. Column 2, Maintenance Level. The lowest level of maintenance authorized to use the tool or test equipment.
- c. Column 3, Nomenclature. Name or identification of the tool or test equipment.
- d. Column 4, National/NATO Stock Number. The National or NATO stock number of the tool or test equipment.
- e. Column 5, Tool Number. The manufacturer's part number.

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
01 0100	Engine Power Plant	Service	*						
		Replace			2.4			12	
	Engine Assembly	Test			4.6			32,27,28	
		Service	*						
		Replace			8.0				
		Repair			*			13,14,20,22, 23,13,14,15, 16,17,18,19, 20,21,22,23, 29,30,31	
		Overhaul				43.0			
0101	Mounts, Engine Block, Crankcase	Replace			3.0				
		Test				*			
		Replace			*				
		Repair			*				
		Overhaul			24.0				
	Cylinder Head	Test				*			
		Replace			3.5				
		Repair			*			14,20,22,23, 25,26	
		Overhaul				9.5		14,20,22,23, 25,26,49	
	Cylinder Sleeve	Inspect				*			
0102	Crankshaft and Bearings	Replace				10.1		45	
		Inspect				*			
		Replace				8.9		16	
	Crankshaft Oil Seal	Replace			4.6			16	
0103	Drive Pulley	Replace			1.0				
	Flywheel Assembly	Replace			4.4			19	
		Repair				*			
	Flywheel Housing	Replace			4.4			21	
		Repair			1.0				
0104	Pistons, Connecting Rods	Inspect				*			
		Replace				5.2		39	
		Repair				6.7			
	Rings and Bearings	Inspect				*			
		Replace				5.2		39	
0105	Valves, Intake & Exhaust	Inspect				*			
		Adjust				0.5			
		Replace				2.5			
		Repair				2.5			
	Valve Guide	Inspect				*			
		Replace				5.3		14,25	
	Shaft, Rocker Arm	Inspect				*			
		Replace				1.8			
	Rocker Arm	Inspect				*			
		Replace				1.8			

\*See footnote at end of chart

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
0106	Seat, Valve	Inspect			*			20,22	
		Replace			3.6				
		Repair			4.0				
		Repair			*				
	Push Rod	Inspect			4.1				
		Replace				*			
	Timing Gear	Inspect				7.4			15
		Replace				*			38
		Repair				*			
	Camshaft & Bearings	Inspect				10.0			44
		Replace				*			
	Seal, Camshaft	Replace			*				
	Intake Parts	Service		*					
	Gasket, Rocker Arm	Inspect		*					
Cover	Replace								
Pump, Oil	Replace			4.9			24		
	Repair			2.2					
Oil Cooler, Engine	Replace		2.2						
	Repair			2.5					
Oil Filter, Engine	Service			*					
	Replace		0.5						
	Repair		1.4						
	Replace		*						
Pan, Engine Oil	Repair		*						
	Replace		*						
	Repair		*						
	Inspect		*						
0108 Exhaust Manifold	Replace		0.2						
	Repair			*					
	Inspect			*					
02 Clutch									
0200 Clutch Assembly	Inspect			*					
0202 Pedal, Controls and Linkage	Replace			3.2					
	Adjust		0.2						
	Replace		0.6						
	Repair		0.9						
Bearing, Clutch Release	Inspect			*					
	Replace			2.3					
Fork, Release Bearing	Inspect			*					
	Replace			2.0					
03 Fuel System									
0301 Fuel Injector	Test			*					
	Replace			*					
	Repair				*	32,37,41,42, 43,46,48,50, 51,52,55			
	Lines and Fittings	Replace		*		18			
	Lever, Rack Control	Adjust		*					
		Replace		*					

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
0302	Pump, Fuel	Test			*				
		Replace		0.4					
0304	Pump, Fuel Carrier Heater (M792)	Test		*					
	Air Cleaner	Replace		0.2					
	Element, Air Cleaner	Replace		0.4					
0305	Hose Assembly Blower Air Intake	Service	*						
		Replace		0.1					
		Replace		0.2					
0306	Tube, Air Box Drain	Inspect			*				
		Test			*				
		Replace			*				
		Repair				*		40	
		Service		*					
0308	Tank, Fuel	Replace		0.2					
		Service	*						
		Replace		0.7					
		Repair			1.0				
0309	Breather, Vent Fuel Filler Cap Lines and Fittings Governor, Engine Speed	Replace		*					
		Replace		0.1					
		Replace		*					
		Test			*				
		Adjust			*				
0311	Controls and Linkage	Replace			*				
		Repair			*	*			
		Adjust			*				
		Replace			*				
		Service	*						
0312	Filter Fuel Primary	Replace		0.3					
		Repair		0.1					
		Service	*						
0311	Filter, Fuel, Secondary	Replace		0.2					
		Repair		0.3					
		Service	*						
		Replace		0.2					
0312	Filter, Fuel Carrier Heater (M792) Engine Coldstart System	Test			*				
		Replace			*				
		Repair			*				
0312	Accelerator pedal and linkage	Adjust		0.1					
		Replace		0.5					
		Repair		0.3					
		Adjust		0.1					
		Replace		0.4					
0312	Control, Throttle	Adjust		*					
		Replace		*					
0312	Cable, Engine Cutoff	Adjust		*					
		Replace		*					



Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
04 0401	Exhaust System	Inspect Replace	*						
	Muffler			0.2					
	Exhaust Manifold (See Group 0108)	Replace Replace Replace		0.2					
	Exhaust Header Pipe			0.2					
	Exhaust Pipe			*					
Tailpipe, Inner & Outer									
05 0501	Cooling System	Test Service			0.4				
	Radiator		*						
	Surge Tank	Replace		1.4					
		Repair			0.7				
		Test			0.3				
		Service	*						
	0502	Replace		0.7					
		Repair			0.4				
		Radiator Mount	Replace		1.4				
		Support Brace	Replace		0.4				
Shroud, Radiator		Replace		0.6					
Repair					0.5				
0503	Thermostat	Replace		0.3					
	Thermostat Housing Gasket	Replace		0.7					
	Thermostat Housing	Replace		0.5					
0504	Hoses and Clamps	Replace		0.3					
	Water Pump	Replace			*				
0505	Pulley	Inspect Adjust Replace Replace Replace	*						
	Belts, Fan Drive, Cooling			0.1					
				0.3					
	Pulley and Hub, Tensioner			0.6					
	Idler Pulley			0.3					
06 0601	Electrical System	Test Replace Repair Replace Replace		*					
	Alternator (60 Amp)			0.6					
					2.5				
	Pulley Alternator			0.2					
	Mounting Bracket			0.3					
0603	Starting Motor	Test		*					
		Replace		0.7					
0607	Instrument Panel Lights Switches and Gages	Repair			*				
		Inspect	*						
		Replace		*					
	Master Switch	Inspect	*						
		Replace		0.2					

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
0608	High Beam indicator Light	Inspect Replace	*	0.1					
	Instrument Panel light	Inspect Replace	*	0.1					
	Stoplight Indicator light	Inspect Replace	*	0.2					
	Engine Start Switch	Inspect Replace	*	0.1					
	Windshield Wiper Switch	Inspect Replace	*	0.1					
	Bilge Pump Switch	Inspect Replace	*	0.1					
	Fuel Lever Indicator Gage	Inspect Replace	*	0.2					
	Battery Generator Indicator Gage	Inspect Replace	*	0.2					
	Oil Pressure Gage	Inspect Replace	*	0.2					
	Coolant Temperature Gage	Inspect Replace	*	0.3					
	Convenience Receptacle Control Box	Replace		0.2					
	Heater Control Box	Replace		0.2					
	Directional Signal Relay	Replace Repair		0.3		0.2			
	Control Assembly Directional Signal	Replace Repair		0.1		*			
	Switch, Stoplight	Replace		0.2					
	Mainlight Switch	Inspect Replace	*	0.2					
	Switch, Beam Selector	Inspect Replace	*	0.1					
	0609	Carrier Stop Signal Switch	Replace		0.2				
Light Assembly (Service and Blackout)		Inspect Replace Repair	*	0.2		*			
Lamp and Lamp Units		Inspect Replace	*	*					
Turn, Park, Blackout Marker Lamp		Inspect Replace	*	0.1					
Headlight Lamp		Inspect Replace	*	0.1					
Blackout headlight Lamp		Inspect Replace	*	0.2					

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
0619	Carrier, Overhead light (M792)	Inspect Replace	*	0.2					
	Carrier Overhead Light Lamp (M792)	Inspect Replace	*	0.1					
	Transmitter	Inspect	*	*					
		Test		*					
		Replace		*					
	Coolant Temperature Sending Unit	Test		0.2					
Replace			0.3						
0611	Engine oil pressure Sending Unit	Test		0.2					
		Replace		0.2					
	Fuel Level Sending Unit	Test		0.2					
		Replace		0.3					
Horn Assembly	Inspect	*							
	Adjust		0.1						
	Replace		0.1						
	Replace		0.2						
0612	Switch	Repair		*					
		Replace		0.2					
	Button	Replace		0.2					
		Replace		0.6					
Battery	Inspect	*							
	Test		0.4						
	Service	*							
	Replace		0.5						
	Repair			1.5					
	Replace		*						
Cover and Strap Assy	Replace		*						
	Repair		*						
	Inspect	*							
	Service		*						
Inter Battery Cable	Replace		0.5						
	Repair		*						
	Inspect	*							
Battery Ground Cable	Service		*						
	Replace		0.5						
	Repair		*						
Battery hold-down bracket	Inspect	*							
	Service		*						
	Replace		0.1						
	Repair		*						
0613	Harness, Engine Tractor	Replace		*					
		Repair		*					
	Carrier Main Wiring & Harness	Replace		0.7					
Repair			0.9						

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
07 0700	Engine Compartment	Replace		0.8					
	Harness	Repair		0.9					
	Tractor Wiring Harness	Replace			4.1				
		Repair		0.9					
	Tractor, Front Fender Harness	Replace		0.5					
		Repair		0.9					
	Tractor to Carrier Cable	Replace		0.1					
	Carrier, Rear Harness Right or Left	Replace		0.5					
		Repair		0.9					
	Carrier Tail Harness	Replace		0.2					
		Repair		0.5					
	Auxiliary Harness	Replace		0.4					
		Repair		0.5					
	Convenience Receptacle Harness (M792)	Replace		0.2					
		Repair		0.5					
	Heater Harness (M792)	Replace		0.2					
		Repair		0.5					
Carrier overhead Light Harness (M792)	Replace		0.2						
	Repair		0.5						
07 0700	Transmission								
	Transmission Assembly	Inspect	*						
		Service		*					
		Adjust		0.5					
		Replace			2.5				
		Repair			*				
0701	Shafts, Gears, Bearings	Overhaul				4.5			
		Replace				*			
0704	Seals	Replace			0.6				
	Top Cover, Transmission	Replace			0.6				
		Repair			1.4				
	Controls and Linkage	Adjust		0.2					
		Replace		*					
		Repair		0.6					
08 0800	Transfer								
	Transfer Assembly	Inspect	*						
		Service		*					
		Replace			4.0				
		Repair			*				
		Overhaul				6.8			
0801	Shafts, Gears, Bearings	Replace				*			
	Seals	Replace			0.8				
	Transfer Oil Gage	Replace		0.2					
0803	Controls and Linkages	Adjust		0.1					
		Replace		1.0					

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
0804	Lubrication Pump	Replace			0.5				
	Lines and Fittings	Replace			0.5				
09	Propeller and Propeller Shafts								
0900	Transmission to Transfer Coupling	Service		0.2					
		Replace		0.5					
		Repair		*					
	Tractor to Carrier Coupling	Service		0.4					
		Replace		0.4					
		Repair		*					
	Tractor Propeller Shafts and Joints	Service		0.8					
		Replace			1.2				
		Repair			*				
	Carrier Propeller and Joints	Service		0.7					
		Replace		1.5					
		Repair		*					
	Carrier Center Bearing	Replace		3.0					
10	Front Axle								
1000	Axle Shaft and U-Joint	Service		*					
		Replace		0.5					
		Repair		0.6					
	Stub Axle Bearing	Replace		0.3					
	Slinger and Seal Stub Axle	Replace		0.5					
1002	Differential Assy	Service		*					
		Replace			4.0				
		Repair			4.2			33,34	
		Overhaul				11.2		33,34	
	Seals, Propeller Shaft	Replace			1.6				
	Seals, Pinion	Replace			1.6				
	Vent Lines & Fittings	Replace			0.9				
1004	Suspension Arm and Ball Joints	Aline			1.0				
		Replace		*				7,8	
		Repair		*					
	Knuckle, Steering	Repair		1.5					
	Upper Suspension Arm	Replace							
	Front and Rear	Service		2.5					
		Replace		3.4				7	
	Lower Suspension Arm Front and Rear	Service		1.1					
		Replace		1.3				8	
11	Rear Axle								
1100	Axle Shaft and U-Joint Assy	Service		0.6					
		Replace		0.5					
		Repair		*					
	Slinger and Seal, Stub Axle	Replace		0.3					
	Stub Axle Bearing	Replace		0.3					

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks	
			C	O	F	H	D			
1102	Differential Assy Rear	Service		*						
		Replace			1.0					
		Repair				4.0		33,34		
		Overhaul				11.6		33,34		
	Seals, Propeller Shaft Seals, Input Yoke Seals, Output Yoke Seals, Shifter Shaft Vent Lines & Fittings	Replace			1.1					
		Replace			0.9					
		Replace			6.8					
		Replace			6.6					
		Replace			0.6					
		Replace			1.0					
1104	Suspension Arm and Ball Joints	Aline			1.0					
		Replace		*				7,8		
	Repair		*							
	Knuckle, Steering	Replace		1.9						
	Carrier Upper Suspension Arm	Replace		2.0				7		
		Repair		1.2						
Carrier Lower Suspension Arm	Replace		1.6				8			
	Repair		2.0							
11	Center Axle Axle Shaft and U-Joint	Service		0.6						
		Replace		0.5						
	Repair		*							
	Slinger and Seal, Stub Axle Stub Axle Bearing	Replace		0.3						
Replace			0.3							
1102	Differential Assembly Center	Service		*						
		Replace			3.0					
		Repair				4.0		33,34		
	Seals, Propeller Shaft Seals, Input Yoke Seals, Output Yoke Vent Lines & Fittings	Overhaul				11.6		33,34		
		Replace			1.1					
		Replace			0.9					
1104	Suspension Arm and Ball Joints	Replace			6.8					
		Replace			0.4					
12	Brakes	Replace		1.3				7,8		
		Repair		1.0						
1201	Parking Brake Assy	Inspect	*							
		Adjust	*							
		Replace		*						
		Repair		*						
	Parking Brake Shoe Parking Brake Drum	Replace		0.7						
		Replace		0.3						
	1202	Parking Brake Lever Parking Brake Linkage Service Brake Assy	Replace		0.6					
			Replace		0.2					
			Inspect		*					
			Service		*				1,2,3	
Adjust	Adjust		*							
	Replace		*				4,5,10			
Repair	Repair		*				53			

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
1204	Air Reservoir, Lines and Fittings	Service		*					
		Replace		0.7					
		Repair		0.7					
	Shoe, Service Brake	Inspect		0.2					
		Adjust		0.4					
		Replace		2.1					
	Cylinder, Master	Repair		0.3					
		Inspect	*						
		Service		*				1	
		Replace		1.2				2,3	
1206 13 1311	Cylinder, Wheel Hoses, Lines & Fittings	Service		*					
		Replace		3.2					
	External	Service							
		Replace		2.0					
	Internal	Replace			4.5				
		Replace		0.5					
	Pedal, Service Brake	Replace							
		Wheels							
	1311	Wheel, Drum Assy	Replace		0.5				
		Hub	Replace		1.7				
1313	Bearings and Caps Inner and Outer	Repair		*					
		Inspect		0.3					
		Service		0.4					
		Adjust		0.5					
		Replace		2.7					
		Inspect		*					
	Seal, Wiper	Replace		2.3					
		Inspect		*					
	Drum Assembly	Replace		0.5					
		Repair			*				
1401	Wheel with Tire	Replace	*	0.3					
		Inspect	*						
	Tire	Service	*						
		Install		0.3					
		Replace		0.3					
		Repair		1.1					
1401	Valve, Tire	Rebuild					1.5		
		Replace		0.5					
	Repair		*						
	Replace		0.1						
1401	Steering Column, Steering	Replace		0.9					
		Repair		1.5					
	Steering Wheel	Aline		*					
		Replace		0.9					

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
1407	Tie Rod Assy	Adjust		0.5				6	
		Replace		0.6					
	Pitman Arm, Front/Rear Idler Arm Assy	Repair		0.5					
		Replace		0.4					
	Pitman Arm	Service		*					
		Replace		0.2					
	U-Joints	Repair		0.3					
		Replace		0.3					
	Torque Tube and Bearing Assembly	Service		*					
		Repair			*				
	Torque Tube Bearing	Service		*					
		Replace		1.0					
	Steering Gear Box Tractor	Repair		1.3					
		Replace		0.5					
Steering Gear Box Carrier	Service		*						
	Adjust			0.4					
15 1501	Frame and Towing Attachments Bumper, Front	Replace		1.3					
		Repair			2.8				
1503	Bumper, Rear Pintle, Towing	Service		*					
		Adjust			0.4				
16 1601	Yoke, Articulation Joint Assy	Replace		1.1					
		Repair			2.1				
1604	Shackle	Replace		0.2					
		Repair		0.3					
18 1801	Springs and Shock Absorbers Springs, Coil, Tractor and Carrier	Replace		0.1					
		Service		*					
1604	Shock Absorbers and Struts Tractor and Carrier	Replace		0.3					
		Repair		0.2					
18 1801	Snubbers (Jounce bumper) Body, Cab, Hood and Hull	Service		*					
		Replace			3.0		11		
1801	Tractor Body, Cab & Hull Fenders	Repair		0.7			11		
		Replace		0.1					
1801	Brush Guards, Headlight	Replace		0.6					
		Replace		0.3					
1801	Brush Guard, Horn	Replace		0.2					
		Repair			1.0				
1801	Brush Guard, Horn	Repair		*					
		Replace		2.0					
1801	Brush Guard, Horn	Repair		0.1					
		Replace		*					
1801	Brush Guard, Horn	Replace		0.2					
		Repair		*					



Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
1806	Brush Guard, Blackout Headlight	Replace		0.1					
		Repair			*				
	Engine Cover (Hood)	Replace		0.7					
		Repair			1.8				
	Tractor Hull Drain Plugs	Replace		0.3					
		Repair			2.0				
	Console	Replace		0.2					
		Repair			1.3				
	Windshield Assembly	Inspect	*						
		Replace		0.3					
		Repair			0.7				
	Access Panels, Steering Gear Box	Replace		0.2					
	Access Panel, Master Cylinder	Replace		0.1					
	Access Panels, Tractor Hull	Replace		0.3					
	Mud Guard, Rear/Front Tractor Fender	Replace		0.4					
	Lifting Rings	Replace		0.1					
	Tie-down Rings	Replace		0.1					
Cargo Tie-downs	Replace		0.2						
Tailgate Bumpers	Replace		0.1						
Lashing Hooks	Replace		0.1						
Seats, Tractor	Replace		0.1						
	Repair			1.0					
Cushion, Seat and Back Rest	Replace			*					
	Repair			*					
1808	Brackets, Tie Downs, Straps	Inspect	*						
		Replace		*					
	Repair			*					
	Replace		0.2						
1810	Tie-down Straps	Replace		0.2					
	Liquid Container								
	Hold-down Bracket	Replace		0.2					
	Battery Box	Replace		0.1					
	Battery Box Strap	Replace		0.4					
	Safety Belts and Straps	Replace		0.2					
	Straps and Brackets (M792)	Replace		0.5					
	Body/Hull and Frame	Repair			2.0				
	Tailgate	Inspect	*						
		Replace		0.2					
		Repair			0.7				
	Tailgate Seal	Replace		0.4					
	Tailgate Locking Handle	Replace		0.1					
	Tailgate Chain Assy	Replace		0.1					
Tailgate Step (M792)	Replace		0.5						
Tailgate Facing	Replace		0.3						
Seats, Troop	Replace		0.2						
	Repair			0.8					

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
22 2201	Troop Seat Latch	Replace		0.1					
	Carrier Seat Backs	Replace		0.2					
	Pioneer Tool Straps	Replace		0.2					
	Accessory Items								
	Canopy, Tractor	Inspect	*						
		Replace		0.3					
		Repair			1.0				
	Bows, Tractor & Carrier	Replace		0.5					
		Repair			1.0				
	Canopy, Carrier	Replace		0.8					
2202		Repair			2.5				
	Canopy, Window (M792)	Replace		0.3					
	Carrier Curtain, Front/Rear	Replace		0.2					
		Repair			2.0				
	Carrier Guard (M792)	Replace		0.4					
	Carrier Head Pad (M792)	Replace		0.2					
	Motor, Windshield Wiper	Replace		0.5					
	Blades and Arm	Inspect	*						
		Replace		0.2					
		Replace		0.2					
2205	Mirrors and Reflectors	Test		0.5					
	Heater Assy (M792)	Service		0.2					
		Replace		0.4					
		Repair		1.5					
	Heater Ducts (M792)	Replace		0.5					
		Repair		1.0					
	Heater Exhaust Pipes	Replace		0.5					
		Repair		0.6					
	Heater Mount & Shroud	Replace		0.2					
		Repair		0.6					
2210 33 3303	Bilge Pump	Inspect	*						
		Test	*						
		Service		*					
		Replace		0.7					
		Repair			1.6				
	Hose, Bilge Pump	Replace		0.3					
	Data Plates	Replace		0.3					
	Special Purpose Kits								
	Winterization Kit (-25°F)	Inspect	*						
		Test			*				
	Service			*					
	Install			*					
	Replace			*					
	Repair			*					

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
	Personnel Heater (-25°F)	Inspect	*						
		Test		0.5					
		Service		0.5					
		Install			*				
		Replace		*					
		Repair		1.5					
	Hoses, Ducting Lines and Tubes	Inspect	*						
		Install			*				
		Replace		*					
		Repair			1.0				
	Control Box, Heater	Inspect	*						
		Replace		*					
		Install			*				
		Repair			*				
	Pump and Fuel Filter	Test	*						
		Service		*					
		Install			*				
		Replace		*					
		Repair			0.4				
	Cab Curtains	Install			*				
		Replace		*					
		Repair			*				
	Arctic Kit (-65°F)	Inspect	*						
		Test			*				
		Service			*				
		Install			*				
		Replace			*				
		Repair			*				
	Heater Assy, Personnel and/or Coolant	Inspect	*						
		Install			*				
		Replace		*					
		Repair		*					
	Control Box, Heater	Inspect	*						
		Install			*				
		Replace		*					
		Repair			*				
	Battery Box, Arctic	Inspect	*						
		Install			*				
		Replace			*				
		Repair			*				
	Hoses, Ducting Lines and Tubes	Inspect	*						
		Install			*				
		Replace		*					
		Repair			*				

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
3307	Pump and Fuel Filter	Test	*						
		Service		*					
		Install			*				
	Hardtop Kit, Arctic	Replace		*					
		Repair			*				
		Install			*				
	Doors	Replace			*				
		Repair			*				
		Inspect	*						
	Hardtop	Replace		*					
		Repair			*				
		Inspect	*						
	Closure Kit, Arctic	Replace		*					
		Repair			*				
		Install			*				
	Pump and Fuel Filter	Replace			*				
		Repair			*				
		Test	*						
	Heater Assy	Service		*					
		Replace		*					
		Repair			*				
	Ducting Lines and Tubes	Inspect	*						
		Replace		*					
		Repair			*				
	Canopy	Inspect	*						
		Replace		*					
		Repair			*				
	Thermal Insulation Blankets	Inspect	*						
		Replace		*					
		Repair			*				
Tailgate Step	Inspect	*							
	Replace		*						
	Repair			*					
Alternator Kit (100 Amp)	Install			*					
	Replace			*					
	Repair			*					
Alternator	Test		*						
	Replace		*						
	Repair			*					
Regulator Winch, Kit	Replace		*						
	Install				1.4				
	Replace				0.7				
Slave Cable, Kit	Repair				*				
	Install				0.5				
	Replace				0.3				
		Repair			0.6				

Section II. MAINTENANCE ALLOCATION CHART

(1) Group Number	(2) Component/Assembly	(3) Maintenance Function	(4) Maintenance Level					(5) Tools and Equipment	(6) Remarks
			C	O	F	H	D		
	Kit, Surfing	Install		*					
		Replace	*						
		Repair		*					
47	Gages (Non-Electric)								
4701	Speedometer	Replace		0.3					
	Speedometer Shaft Assy	Replace		0.5					
		Repair		0.7					
4702	Air Filter Indicator	Test	0.1						
		Replace		0.3					
	Indicator Bracket	Replace		0.1					
	Lines and Fittings	Replace		3.9					
	*Work time not determined.								

## Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS

(1) Reference Code	(2) Maintenance Level	(3) Nomenclature	(4) National/NATO Stock Number	(5) Tool Number
1	O,F,H	ADAPTER: Master cylinder, bleeder	5120-00-563-4928	11660069
2	O,F,H	TUBE: Wheel cylinder, bleeder	4710-00-617-8629	11660072
3	O,F,H	WRENCH: Crowfoot, Wheel Cylinder	5120-00-541-4073	T1270-9
4	O,F,H	DRIVER, SET: Bearing, brake	5120-00-563-4930	11660068
5	O,F,H	DRIVER, SET: Bearing brake, cup and wiper	5120-00-563-4931	11660070
6	O,F,H	REMOVER: Tie rod	5120-00-880-4268	11595179
7	O,F,H	SOCKET: Suspension, upper	5120-00-808-8023	11595277
8	O,F,H	BIT, HEXAGON: Suspension, lower	5120-00-084-0930	11602291
9	O,F,H	GAGE, FUEL PRESSURE	5120-00-498-3862	11660067
10	O,F,H	WRENCH: Wheel bearing nut	5120-00-498-3862	11660067
11	O,F,H	WRENCH: Articulation collar	5120-00-880-4264	11602326
12	F,H	SLING: Engine and Transmission	4910-00-168-2388	11595523
13	F,H	ADAPTER: Cylinder compression tester	4910-00-019-5241	10934456
14	F,H	REPLACER: Valve guide	5120-00-872-6014	J9729
15	F,H	REMOVER: Push rod	5120-00-494-1843	J3092-01
16	F,H	EXPANDER: Oil seal crankshaft	4910-00-591-6640	10949378
17	F,H	GAGE: Fuel injector timing	5220-00-387-9581	10881887
18	F,H	WRENCH, TORQUE: Fuel line nut	5120-00-019-5232	J8932-01
19	F,H	HOOK, LIFTING: Flywheel	4910-00-722-3877	10881880
20	F,H	TOOL KIT: Valve seat inserter	5180-00-591-6631	1094970
21	F,H	ALINING STUDS: Flywheel housing	5120-00-872-6015	J7540
22	F,H	INSTALLER: Valve seat insert	4910-00-603-8925	10949451
23	F,H	COMPRESSOR: Valve spring	5120-00-733-8888	10881882
24	F,H	INSTALLER; Oil pump gear	5120-00-591-6639	10949379
25	F,H	REMOVER: Valve guide	4910-00-591-6632	10949450
26	F,H	REMOVER: Valve spring	5120-00-219-8400	10881891
27	F,H	MANOMETER, U-TUBE: Pressure	6685-00-857-4895	J21478-1
28	F,H	TUBE, RUBBER: Use with manometer	4720-00-271-9839	MILR6855
29	F,H	CRADLE ASSY: Engine stand	4910-00-795-0198	7950198
30	F,H	STAND, MAINTENANCE: Engine	4910-00-795-0189	7950189
31	F,H	BRACKET: Engine cradle	5340-00-117-2541	11595858
32	F,H	TEST FIXTURE, INJECTOR	4910-00-355-6248	YDG
33	F,H	TOOL KIT: Differential	4910-00-150-5868	11660115
34	F,H	ADAPTER: Equalizer	4910-00-880-4279	11595241
35	F,H	GAGE: Cylinder	4910-00-870-6283	10899180
36	F,H	TACHOMETER:	6680-00-242-9229	107
37	H	TUBE TIP REFINISHER: Injector	5720-00-785-1017	10881902
38	H	INSTALLER: Timing Gear	4910-00-736-1371	10949377
39	H	COMPRESSOR: Piston ring		J6883-01
40	H	INSTALLER: Blower drive cam	4910-00-591-6633	J5209
41	H	INSTALLER PILOT: Injector tube	4940-00-711-1919	10881896
42	H	FLARING DIE INSTALLER	4940-00-711-1920	19881892
43	H	INSTALLER: Injector Tube	4940-00-711-1918	10881893
44	H	INSTALLER: Camshaft bearing	5120-00-878-8541	7950163
45	H	CLAMP, Hold Down: Cylinder Liner	5120-00-999-8618	J21793

## Section III. TOOL AND TEST EQUIPMENT REQUIREMENTS

(1) Reference Code	(2) Maintenance Level	(3) Nomenclature	(4) National/NATO Stock Number	(5) Tool Number
46	H	REAMER: Injector tube	5110-00-785-1016	10881897
47	H	INSTALLER, SEAL: Front Cover	5120-00-937-6143	J9790
48	H	REAMER, HAND: Injector tip	5110-00-294-4606	10881907
49	H	STUD: Cylinder head	4910-00-591-6634	J9665
50	H	REMOVER SET: Carbon	5110-00-084-0951	J9418
51	H	REPAIR KIT: Injector	2815-00-705-9271	J1241-06
52	H	BLOCK: Injector Valve	4910-00-391-1705	5344995
53	H	FIXTURE: Drum turn arbor	4910-00-448-5288	11660096
54	H	WISE: Pin	5120-00-937-8633	J9464
55	H	ADAPTER: Needle valve, injector	4910-00-764-5626	YA396
56	O	No. 1 Common Organizational Maintenance Tool Kit	4910-00-754-0654	SC4910-95- CL-A74
57	O	No. 1 Supplemental Organizational Maintenance Tool Kit	4910-00-754-0653	SC4910-95- CL-A73
58	O	No. 2 Common Organizational Maintenance Tool Kit	4910-00-754-0650	SC4910-95- CL-A72
59	O	No. 2 Supplement Organizational Maintenance Tool Kit	4940-00-754-0743	SC4940-95- CL-A08





By Order of the Secretaries of the Army and the Air Force:

Official:

**E. C. MEYER**  
*General, United States Army*  
*Chief of Staff*

**J. C. PENNINGTON**  
*Major General, United States Army*  
*The Adjutant General*

Official:

**LEW ALLEN, JR., General, USAF**  
*Chief of Staff*

**VAN L. CRAWFORD, JR., Colonel, USAF**  
*Director of Administration*

**Distribution:**

To be distributed in accordance with DA Form 12-38, Organizational Maintenance requirements for Truck, Cargo: 1 $\frac{1}{4}$ -Ton, 6x6, M561, and Truck, Ambulance: 1 $\frac{1}{4}$ -Ton, 6x6, M792.





THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM, CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

SOMETHING WRONG WITH THIS PUBLICATION?

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)  
 CDR, 1st Bn, 65th ADA  
 Attn: SP4 Jane Idone  
 Key West, FL 33040

DATE SENT  
 27 July 1980

PUBLICATION NUMBER  
 TM 9-2320-242-20-1

PUBLICATION DATE  
 15 June 1980

PUBLICATION TITLE  
 ORGANIZATIONAL SCHEDULED MAINTENANCE MANUAL

BE EXACT... PIN-POINT WHERE IT IS

PAGE NO	PARA-GRAPH	FIGURE NO	TABLE NO
1-10			1-1
1-13			1-1
1-37			1-5

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

Item 10, front axle, step 3 reads "Using 15/16-inch wrench, tighten spring U-bolt nuts (3)." Should read "Using torque wrench with 15/16-inch socket, tighten spring U-bolt nuts (3) to 300 pound-feet."

Item 13, Propeller shafts  
 Change illustration callouts. Reason: callouts for universal joint (5) and mounting bolts (6) are reversed.

Item 2, Boom assembly, step 7 refers to Vol 3, chapter 10. Should refer to Vol 3, chapter 18, para 18-21.

SAMPLE

PRINTED NAME GRADE OR TITLE AND TELEPHONE NUMBER  
 SP4 Jane Idone      Avtron 222-2224

SIGN HERE  
*Jane Idone*

FILL IN YOUR  
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE \$300

POSTAGE AND FEES PAID  
DEPARTMENT OF THE ARMY  
DOD 314



TEAR ALONG PERFORATED LINE

COMMANDER  
U.S. ARMY TANK-AUTOMOTIVE  
MATERIEL READINESS COMMAND  
ATTN: DRSTA-MBA  
WARREN, MO MI 48090

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

**SOMETHING WRONG WITH THIS PUBLICATION?**



THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM, CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

TM 9-2320-242-20-1

PUBLICATION DATE

November 1980

PUBLICATION TITLE

ORGANIZATIONAL  
SCHEDULED MAINTENANCE MANUAL

BE EXACT... PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE:

TEAR ALONG PERFORATED LINE

FILL IN YOUR  
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE \$300

POSTAGE AND FEES PAID  
DEPARTMENT OF THE ARMY  
DOD 314



TEAR ALONG PERFORATED LINE

COMMANDER  
U.S. ARMY TANK-AUTOMOTIVE  
MATERIEL READINESS COMMAND  
ATTN: DRSTA-MBA  
WARREN, MO MI 48090

RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

**SOMETHING WRONG WITH THIS PUBLICATION?**



THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM, CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

TM 9-2320-242-20-1

PUBLICATION DATE

November 1980

PUBLICATION TITLE

ORGANIZATIONAL  
SCHEDULED MAINTENANCE MANUAL

BE EXACT... PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE:

TEAR ALONG PERFORATED LINE

FILL IN YOUR  
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE \$300

POSTAGE AND FEES PAID  
DEPARTMENT OF THE ARMY  
DOD 314



TEAR ALONG PERFORATED LINE

COMMANDER  
U.S. ARMY TANK-AUTOMOTIVE  
MATERIEL READINESS COMMAND  
ATTN: DRSTA-MBA  
WARREN, MO MI 48090



RECOMMENDED CHANGES TO EQUIPMENT TECHNICAL PUBLICATIONS

**SOMETHING WRONG WITH THIS PUBLICATION?**



THEN... JOT DOWN THE DOPE ABOUT IT ON THIS FORM, CAREFULLY TEAR IT OUT, FOLD IT AND DROP IT IN THE MAIL!

FROM: (PRINT YOUR UNIT'S COMPLETE ADDRESS)

DATE SENT

PUBLICATION NUMBER

TM 9-2320-242-20-1

PUBLICATION DATE

November 1980

PUBLICATION TITLE

ORGANIZATIONAL  
SCHEDULED MAINTENANCE MANUAL

BE EXACT... PIN-POINT WHERE IT IS

PAGE NO.	PARA-GRAPH	FIGURE NO.	TABLE NO.

IN THIS SPACE TELL WHAT IS WRONG AND WHAT SHOULD BE DONE ABOUT IT:

PRINTED NAME, GRADE OR TITLE, AND TELEPHONE NUMBER

SIGN HERE:

TEAR ALONG PERFORATED LINE

FILL IN YOUR  
UNIT'S ADDRESS

FOLD BACK

DEPARTMENT OF THE ARMY

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE \$300

POSTAGE AND FEES PAID  
DEPARTMENT OF THE ARMY  
DOD 314



TEAR ALONG PERFORATED LINE

COMMANDER  
U.S. ARMY TANK-AUTOMOTIVE  
MATERIEL READINESS COMMAND  
ATTN: DRSTA-MBA  
WARREN, MO MI 48090

## THE METRIC SYSTEM AND EQUIVALENTS

### LINEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches  
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches  
 1 Kilometer = 1000 Meters = 0.621 Miles

### WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces  
 1 Kilogram = 1000 Grams = 2.2 Lb  
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

### LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces  
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

### SQUARE MEASURE

1 Sq Centimeter = 100 Sq Millimeters = 0.155 Sq Inches  
 1 Sq Meter = 10,000 Sq Centimeters = 10.76 Sq Feet  
 1 Sq Kilometer = 1,000,000 Sq Meters = 0.386 Sq Miles

### CUBIC MEASURE

1 Cu Centimeter = 1000 Cu Millimeters = 0.06 Cu Inches  
 1 Cu Meter = 1,000,000 Cu Centimeters = 35.31 Cu Feet

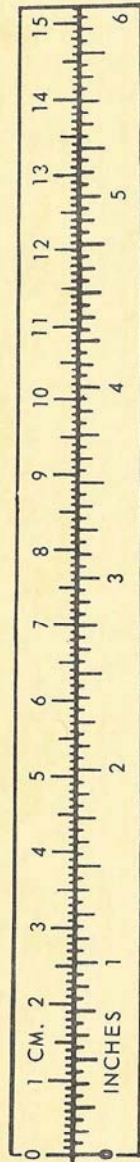
### TEMPERATURE

$5/9 (^{\circ}\text{F} - 32) = ^{\circ}\text{C}$   
 212<sup>o</sup> Fahrenheit is equivalent to 100<sup>o</sup> Celsius  
 90<sup>o</sup> Fahrenheit is equivalent to 32<sup>o</sup> Celsius  
 32<sup>o</sup> Fahrenheit is equivalent to 0<sup>o</sup> Celsius  
 $9/5 \text{ C}^{\circ} + 32 = \text{F}^{\circ}$

### APPROXIMATE CONVERSION FACTORS

<u>TO CHANGE</u>	<u>TO</u>	<u>MULTIPLY BY</u>
Inches . . . . .	Centimeters . . . . .	2.540
Feet . . . . .	Meters . . . . .	0.305
Yards . . . . .	Meters . . . . .	0.914
Miles . . . . .	Kilometers . . . . .	1.609
Square Inches . . . . .	Square Centimeters . . . . .	6.451
Square Feet . . . . .	Square Meters . . . . .	0.093
Square Yards . . . . .	Square Meters . . . . .	0.836
Square Miles . . . . .	Square Kilometers . . . . .	2.590
Acres . . . . .	Square Hectometers . . . . .	0.405
Cubic Feet . . . . .	Cubic Meters . . . . .	0.028
Cubic Yards . . . . .	Cubic Meters . . . . .	0.765
Fluid Ounces . . . . .	Milliliters . . . . .	29.573
Pints . . . . .	Liters . . . . .	0.473
Quarts . . . . .	Liters . . . . .	0.946
Gallons . . . . .	Liters . . . . .	3.785
Ounces . . . . .	Grams . . . . .	28.349
Pounds . . . . .	Kilograms . . . . .	0.454
Short Tons . . . . .	Metric Tons . . . . .	0.907
Pound-Feet . . . . .	Newton-Meters . . . . .	1.356
Pounds per Square Inch . . . . .	Kilopascals . . . . .	6.895
Miles per Gallon . . . . .	Kilometers per Liter . . . . .	0.425
Miles per Hour . . . . .	Kilometers per Hour . . . . .	1.609

<u>TO CHANGE</u>	<u>TO</u>	<u>MULTIPLY BY</u>
Centimeters . . . . .	Inches . . . . .	0.394
Meters . . . . .	Feet . . . . .	3.280
Meters . . . . .	Yards . . . . .	1.094
Kilometers . . . . .	Miles . . . . .	0.621
Square Centimeters . . . . .	Square Inches . . . . .	0.155
Square Meters . . . . .	Square Feet . . . . .	10.764
Square Meters . . . . .	Square Yards . . . . .	1.196
Square Kilometers . . . . .	Square Miles . . . . .	0.386
Square Hectometers . . . . .	Acres . . . . .	2.471
Cubic Meters . . . . .	Cubic Feet . . . . .	35.315
Cubic Meters . . . . .	Cubic Yards . . . . .	1.308
Milliliters . . . . .	Fluid Ounces . . . . .	0.034
Liters . . . . .	Pints . . . . .	2.113
Liters . . . . .	Quarts . . . . .	1.057
Liters . . . . .	Gallons . . . . .	0.264
Grams . . . . .	Ounces . . . . .	0.035
Kilograms . . . . .	Pounds . . . . .	2.205
Metric Tons . . . . .	Short Tons . . . . .	1.102
Newton-Meters . . . . .	Pound-Feet . . . . .	0.738
Kilopascals . . . . .	Pounds per Square Inch . . . . .	0.145
Kilometers per Liter . . . . .	Miles per Gallon . . . . .	2.354
Kilometers per Hour . . . . .	Miles per Hour . . . . .	0.621



TAO89991

