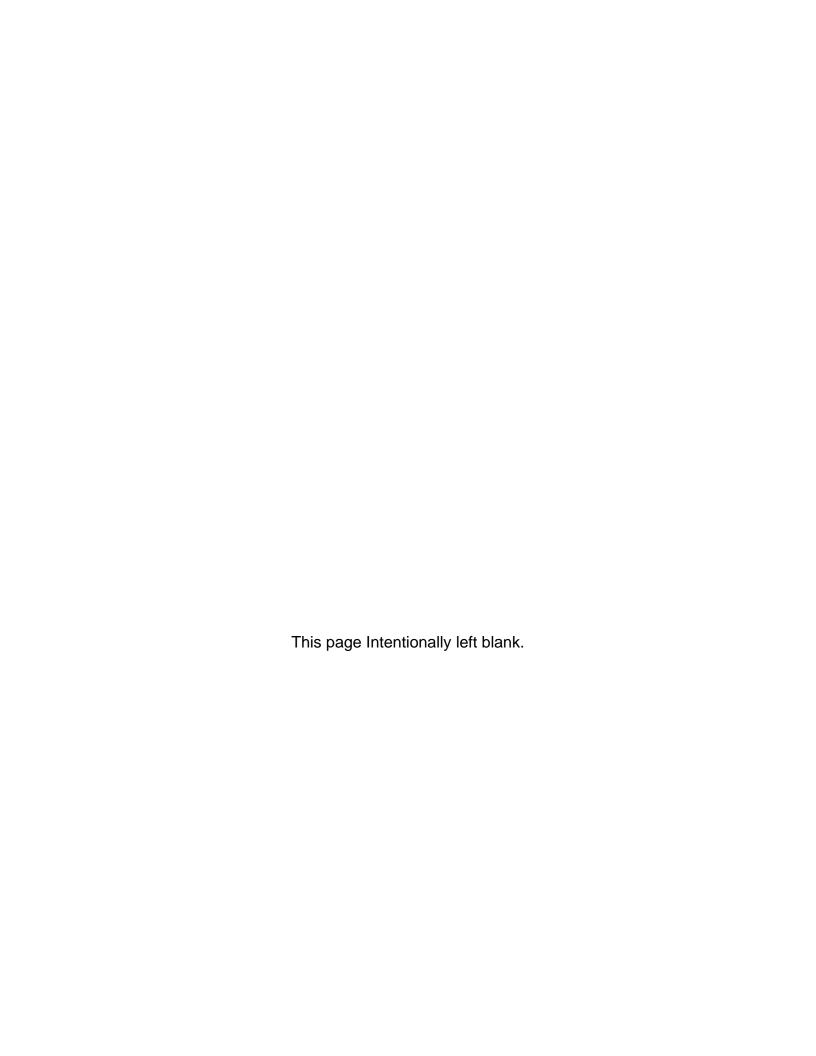
# SOLDIER'S MANUAL and TRAINER'S GUIDE MOS 63S HEAVY WHEEL VEHICLE MECHANIC Skill Levels 1 and 2



DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY



SOLDIER TRAINING PUBLICATION No. 9-63S12-SM-TG

HEADQUARTERS DEPARTMENT OF THE ARMY Washington, DC, 31 August 2001

# **TABLE OF CONTENTS**

		PAGE
Table of Co	ontents	i
PREFACE.		V
Chapter 1.	Introduction	1-0
Chapter 2.	Trainer's Guide	2-1
	2-1. General	
	2-2. Subject Area Codes	2-3
	2-3. Duty Position Training Requirements	2-4
	2-4. Critical Tasks List	2-5
Chapter 3.	MOS/Skill Level Tasks	3-1

DISTRIBUTION RESTRICTION: Approved for public release; distribution is unlimited.

Supersedes STP 9-63S12 SM-TG, dated September 1990

# Skill Level 1

Subject A	\rea 1:	ENGINE
-----------	---------	--------

091-63S-2001	Service Engine Assembly on a Heavy Wheeled Vehicle	3-1
	Subject Area 2: ENGINE LUBRICATION SYSTEM	
091-63S-2003	Replace Engine Oil Filter on a Heavy Wheeled Vehicle	3-2
091-63S-2005	Correct Malfunction of Engine Oil Cooler and Lines on a Heavy Wheeled	
	Vehicle	3-3
	Subject Area 3: FUEL SYSTEM	
091-63S-2007	Troubleshoot Fuel System Malfunctions on a Heavy Wheeled Vehicle	3-4
091-63S-2009	Correct Malfunction of Fuel Pump on a Heavy Wheeled Vehicle	3-5
091-63S-2012	Replace Fuel Fitting and Lines on a Heavy Wheeled Vehicle	3-6
091-63S-2013	Replace Fuel Tank on a Heavy Wheeled Vehicle	3-7
091-63S-2014	Replace Fuel Filter Assembly on a Heavy Wheeled Vehicle	3-8
	Subject Area 4: EXHAUST SYSTEM	
091-63S-2021	Troubleshoot Exhaust System on a Heavy Wheeled Vehicle	3-9
091-63S-2022	Replace Muffler on a Heavy Wheeled Vehicle	3-10
091-63S-2023	Replace Crossover Pipe on a Heavy Wheeled Vehicle	3-11
	Subject Area 5: COOLING SYSTEM	
091-63S-2025	Troubleshoot Cooling System Malfunctions on a Heavy Wheeled Vehicle	3-12
	Replace Radiator on a Heavy Wheeled Vehicle	
091-63S-2029	Replace Radiator Hoses, Lines, and Clamps on a Heavy Wheeled Vehicle	3-14
091-63S-2031	Correct Malfunction of Fan and Drive on a Heavy Wheeled Vehicle	3-15
091-63S-2033	Correct Malfunction of Drive Belts on a Heavy Wheeled Vehicle	3-16
	Subject Area 6: ELECTRICAL SYSTEM	
091-63S-2036	Troubleshoot Charging System Malfunction on a Heavy Wheeled Vehicle	3-17
	Correct Malfunction of Alternator on a Heavy Wheeled Vehicle	
091-63S-2038	Troubleshoot Starting System Malfunction on a Heavy Wheeled Vehicle	3-19
091-63S-2039	Replace Starter on a Heavy Wheeled Vehicle	3-20
091-63S-2041	Troubleshoot Electrical System Malfunction on a Heavy Wheeled Vehicle	3-21
091-63S-2044	Replace Protective Control Box on a Heavy Wheeled Vehicle	3-22
091-63S-2047	Correct Malfunction of Sending Units and Warning Switches on a Heavy	
	Wheeled Vehicle	
091-63S-2050	Correct Malfunction of Batteries on a Heavy Wheeled Vehicle	3-24
	Subject Area 7: INSTRUMENT PANEL	
091-63S-2053	Troubleshoot Electrical Gauges on a Heavy Wheeled Vehicle	3-25
	Subject Area 8: WIRING HARNESS	
091-63S-2055	Repair Engine Wiring Harness on a heavy Wheeled Vehicle	3-26
091-63S-2057	Repair Chassis Wiring Harness on a Heavy Wheeled Vehicle	3-27
	Subject Area 9: TRANSMISSION	
091-63S-2058	Troubleshoot Transmission Malfunction	3-28
	Service Transmission Assembly on a Heavy Wheeled Vehicle	
	Replace Neutral Safety Switch on a Heavy Wheeled Vehicle	
	Subject Area 10: TRANSFER	
091-63S-2066	Troubleshoot Transfer Malfunctions on a Heavy Wheeled Vehicle	3-31

	Subject Area 11: PROPELLAR SHAFTS	
091-63S-2075	Troubleshoot Propeller Shafts on a Heavy Wheeled Vehicle	3-32
091-63S-2076	Replace Universal Joints on an Heavy Wheeled Vehicle	3-33
	Subject Area 12: AXLES	
091-63S-2078	Troubleshoot Axle Malfunctions on a Heavy Wheeled Vehicle	3-34
	Subject Area 13: BRAKES	
091-63S-2097	Troubleshoot Brake System Malfunctions	3-35
091-63S-2098	Replace Brake Lines and Fittings on a Heavy Wheeled Vehicle	3-36
091-63S-2100	Replace Hand Brake Shoes on a Heavy Wheeled Vehicle	3-37
091-63S-2105	Replace Service Brake Shoes on a Heavy Wheeled Vehicle	3-38
	Subject Area 14: WHEELS AND HUBS	
091-63S-2135	Correct Malfunction of Wheel and Tire Assembly on a Heavy Wheeled	
	Vehicle	3-39
	Subject Area 15: STEERING	
091-63S-2139	Troubleshoot Steering System Malfunction	3-40
091-63S-2141	Correct Malfunction of Tie Rod Assembly on a Heavy Wheeled Vehicle	3-41
091-63S-2143	Correct Malfunction of Power Assist Cylinder on a Heavy Wheeled Vehicle	3-42
091-63S-2154	Replace Power Steering Lines and Fittings on a Heavy Wheeled Vehicle	3-43
	Subject Area 16: SPRINGS AND SHOCKS	
091-63S-2161	Replace Shock Absorber on a Heavy Wheeled Vehicle	3-44
	Subject Area 17: BODY,HOOD AND CAB	
091-63S-2172	Replace Seat Belts on a Heavy Wheeled Vehicle	3-45
	Subject Area 18: HOIST, WINCH, AND POWER TAKEOFF	
091-63S-2191	Troubleshoot Winch Malfunction on a Heavy Wheeled Vehicle	3-46
	Subject Area 19: CENTRAL TIRE INFLATION SYSTEM (CTIS)	
091-63S-2218	Troubleshoot Central Tire Inflation System (CTIS)	3-47
091-63S-2219	Replace Air Lines and Fitting on a Heavy Wheeled Vehicle	3-49
091-63S-2220	Correct Malfunction of Air Dryer With Filter on a Heavy Wheeled Vehicle	3-50
091-63S-2224	Replace CTIS Pressure Switch on a Heavy Wheeled Vehicle	3-51
091-63S-2226	Correct Malfunction of CTIS Front and Rear Air Seals on a Heavy Wheeled	
	Vehicle	3-52
	Subject Area 20: GENERAL MAINTENANCE TASKS	
	Maintain, Test, Measurement, and Diagnostic Equipment	
	Maintain Assigned Vehicle	
	Maintain Assigned Tool Kit	3-55
091-63S-2231	Prepare Equipment Inspection and Maintenance Worksheet (DA Form 2404 or ULLS Equivalent)	3-56
091-63S-2234	Perform Scheduled Preventive Maintenance Checks and Services on a	
	Heavy Wheeled Vehicle	3-57
	Subject Area 21: RECOVERY (ASI H8)	
	Locate a Recovery Site	
	Determine Recovery Methods	
	Operate Tactical Communications Equipment	
	Operate Metal Cutting Equipment	3-61
091-H8W-2001	Perform Preventive Maintenance Checks And Services (PMCS) On	0.00
	Wheeled Recovery Vehicle	3-62

091-H8W-2002	Use And Maintain Basic Issue Items (BII) Related To Wheeled Recover Operations	
091-H8W-2003	Drive Wheeled Recovery Vehicle	3-64
	Operate Boom/Hoist, Wheeled Recovery Vehicle	
091-H8W-2005	Operate The Retrieval System on a Wheeled Vehicle	3-66
091-H8W-2006	Operate Winches on a Wheeled Recovery Vehicle	3-67
091-H8W-2007	Recover a Mired Wheeled Vehicle	3-68
091-H8W-2008	Recover an Overturned Vehicle	3-70
091-H8W-2009	Tow a Wheel Vehicle Using a Retrieval System	3-71
091-H8W-2010	Tow a Wheel Vehicle Using the Boom and Tow Bar	3-71
091-H8W-2011	Perform Self Recovery On A Wheeled Vehicle	3-72
	Perform Field Expedient Recovery on a Wheeled Vehicle	
APPENDIX A		A-1
APPENDIX B		B-1
Glossary		Glossary-1
Supporting Referen	ces R	References-1

## **PREFACE**

This soldier training publication (STP) is intended for soldiers holding MOS 63S, Skill Levels 1 and 2, their supervisors, trainers, and commanders. It contains an MOS Training Plan providing information needed to plan, conduct, and evaluate unit training, one of the most important jobs of military leaders. It includes standardized training objectives in the form of task summaries that can be used to train and evaluate soldiers on critical tasks supporting unit missions during wartime. Soldiers holding MOS 63S should have access to this publication. Trainers and first line supervisors should actively plan for soldiers' access, making it available in work areas, unit learning centers, and unit libraries. However, it is not intended for an individual copy to be provided to each MOS holder. The STP is obtainable on line from the Reimer Digital Library (RDL) at www.adtdl.army.mil. Tasks in this manual apply to both Active and Reserve Component soldiers. The proponent of this publication is CASCOM. Submit comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Department of the Army, Training Directorate, Ordnance Training Division, ATTN: ATCL-AO, 401 First Street, Suite 227, Fort Lee, VA 23801-1511. Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

This page intentionally left blank.

#### **CHAPTER 1**

#### Introduction

- 1-1. <u>General</u>. This soldier training publication (STP) identifies individual MOS training requirements for soldiers holding MOS 63S. Commanders, trainers, and soldiers should use it to plan, conduct, and evaluate individual training in units. The STP is the primary MOS reference for supporting self-development, evaluating MOS proficiency, and training of 63S soldiers. Commanders employ two primary methods to evaluate soldiers' proficiency:
  - Commander's evaluation. Commander's evaluations are local tests or assessments of soldiers' performance of MOS-specific and common tasks critical to the unit mission. They may be conducted year-round.
  - Common task test (CTT). CTTs are hands-on tests used to evaluate proficiency on common tasks. Alternate written tests are provided if equipment is not available for hands-on testing.

This publication is the soldier's primary reference to prepare for a commander's evaluation of MOS-specific tasks. It contains task summaries for all critical tasks specific to the MOS and skill level (SL). Commanders and trainers will use this soldier's manual/trainer's guide (SM/TG) to plan and conduct training and commander's evaluations.

Chapter 2, Trainer's Guide, contains information needed to plan training requirements for this MOS. The trainer's guide:

- Identifies subject areas in which soldiers must be trained.
- Identifies critical tasks for each subject area.
- Specifies where soldiers are initially trained on each task.
- Recommends how often each task should be trained to sustain proficiency.
- Recommends a strategy for cross-training soldiers.
- Recommends a strategy for training soldiers to perform higher-level tasks.

Use this STP along with STP 21-1-SMCT (Soldier's Manual of Common Tasks, Skill Level 1), STP 21-24-SMCT (Soldier's Manual of Common Tasks, Skill Levels 2-4), Army training and evaluation programs (ARTEPs), FM 25-4 (How to Conduct Training Exercises), FM 25-5 (Training for Mobilization and War), FM 25-100 (Training the Force), and FM 25-101 (Battle-Focused Training) to establish effective training plans and programs that integrate soldier, leader, and collective tasks.

- 1-2. <u>Task Summaries</u>. Task summaries outline wartime performance requirements for each critical task in the STP. They provide both soldier and trainer with the information necessary to prepare, conduct, and evaluate critical task training. As a minimum, task summaries include information soldiers must know and skills they must perform to standard for each task. Following is the task summary format:
  - Task number. The task number is a 10-digit number that identifies the task, MOS and skill level. Include the task number and title in any correspondence relating to the task.
  - Task title. The task title identifies the action to be performed.
  - Conditions. The task conditions statement describes the field or garrison conditions under which the task will be performed and identifies the equipment, tools, references, job aids, and supporting personnel that the soldier needs to perform the task in wartime.
  - Standards. The task standards describe how well and to what level of proficiency the soldier must perform the task under wartime conditions. Standards are typically expressed in terms of accuracy, completeness, duration, sequence, speed, and tolerance.
  - Performance measures. This section identifies specific actions that the soldier must accomplish to complete the task successfully. Performance measures appear in a GO/NO GO rating format for easy evaluation. Some tasks may also include detailed training information in a Training Information Outline and an Evaluation Preparation Section. The Evaluation Preparation Section indicates necessary modifications to task performance in order to train and evaluate a task that can not be trained to the wartime standard under wartime conditions. It may also include special training and evaluation preparation instructions to accommodate these modifications and any instructions that should be given to the soldier before evaluation.
  - References. This section identifies references that provide more detailed explanations of task performance requirements than are given in the task summary.
  - Warnings. Warnings alert users to the possibility of immediate personal injury or equipment damage.
  - Notes. Notes provide additional supportive explanations or tips relating to task performance.

1-3. <u>Soldier's Responsibilities</u>. Each soldier is responsible for performing individual tasks identified by the first-line supervisor based on the unit's mission-essential task list (METL). Soldiers must perform tasks to the standards included in the task summary. If soldiers have questions about tasks or which tasks in this manual they must perform, they are responsible for asking their first-line supervisor for clarification. First-line supervisors know how to perform each task or can direct soldiers to appropriate training materials, including current field manuals, technical manuals, and Army regulations. Soldiers are responsible for using these materials to maintain performance. They are also responsible for maintaining performance of all common tasks listed in the SMCTs at their current skill level and below.

Periodically, soldiers should ask their supervisor or another solder to check their performance to ensure that they can perform the tasks.

- 1-4. NCO Self-Development and the STP. Self-development is a key component of leader development. Leaders follow planned, progressive, sequential self-development programs developed by the individual NCO and his or her first-line supervisor to enhance and sustain military competencies. Self-development consists of individual study, research, professional reading, practice, and self-assessment. The self-development concept requires NCOs, as Army professionals, to take responsibility for remaining current in all phases of their MOS. The STP is the NCO's primary source for maintaining MOS proficiency.
- 1-5. <u>Commander's Responsibilities</u>. Commanders must ensure that their unit training plans prepare the unit for war by enabling soldiers to develop and sustain proficiency in their MOS and skill level tasks. Commanders should design unit training programs to provide individual training for all soldiers assigned to the unit and to evaluate soldier proficiency routinely as part of the commander's evaluation program. The unit training program should also integrate individual training with crew drills and other collective training. The MOS training plan provides information on which to base integration, cross-train, and sustainment training programs. Commanders should use the MOS training plan when developing unit training plans.
- 1-6. <u>Trainer's Responsibilities</u>. Training is the business of all unit leaders. First-line leaders are the principal trainers in the unit because they directly supervise soldiers and lead crews, squads, sections, and teams.

Trainers can use the MOS training plan to determine the critical tasks each soldier is responsible for. They should tell each soldier which tasks he or she must be able to perform. Trainers should evaluate task performance to determine which tasks each soldier can or cannot perform to standard. Soldiers who cannot perform a task to standard need further training. Developing effective training is explained in detail in FM 25-100 and FM 25-101.

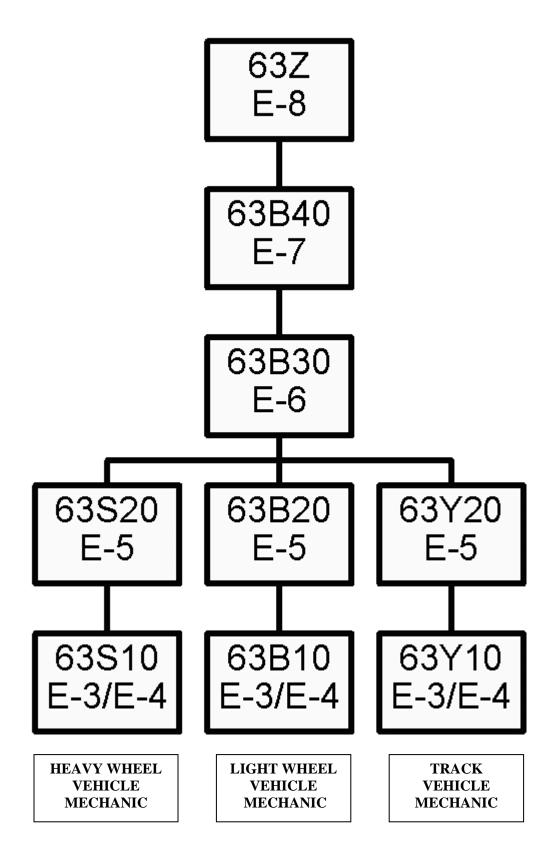
Every task summary in this STP includes performance measures, which trainers may use year-round to determine if soldiers can perform critical tasks to the specified standards. The performance measures identify what the trainer needs to observe to score a soldier's performance. A blank space is provided for the trainer to check either the GO or NO GO column for each performance measure. Some tasks require the trainer to watch the soldier perform them

(evaluate the process). Other tasks call for the trainer to focus on the results of the soldier's performance (evaluate the product). Comments should not be written on the task summary.

Trainers can monitor the progress of their soldiers by recording task go/no-go results. Trainers may use DA Form 5164-R (Hands-on Evaluation) to record the performance measures a soldier passed or failed. The form, which may be locally reproduced, applies to all tasks in this STP. Trainers may have DA Form 5164-R over printed with information unique to their training requirements before reproducing it. See Appendix A of this STP for a sample DA Form 5164-R with instructions.

- Trainers may use DA Form 5165-R (Field Expedient Squad Book) to record hands-on go/no-go results for a group of soldiers (for example, a crew, section, or squad) having the same MOS and skill level. This form supports conduct of commander's evaluations, and can be used to record training results gathered in the field during slack time for all MOSs and skill levels. Use of this form is optional. See Appendix B for a sample DA Form 5165-R with instructions. Trainers should work with each soldier until tasks can be performed to specific task summary standards.
- 1-7. <u>Training Support</u>. References have been identified for each task to assist in planning and conducting training. A consolidated list of references identified by type, publication number, and title and a comprehensive glossary of acronyms, abbreviations, and definitions are included in this STP.

# **CAREER PROGRESSION CHART**



#### **CHAPTER 2**

## **Training Guide**

63S CAREER FIELD DUTY POSITIONS							
Duty Position Subject Cross Train-up/Merger							
Area Train							
	Skill Level 1						
Heavy Wheel Vehicle Mechanic	Heavy Wheel Vehicle Mechanic 1 - 2 NA 63S20 Recovery Vehicle Mechanic						
Skill Level 2							
Recovery Wheel Operator 1 - 2 NA 63S20 Recovery Vehicle Operator							

2-1. <u>General</u>. The MOS Training Plan (MTP) identifies the essential components of a unit training plan for individual training. Units have different training needs and requirements based on differences in environment, location, equipment, dispersion, and similar factors. Therefore, the MTP should be used as a guide for conducting unit training and not a rigid standard. The MTP consists of two parts. Each part is designed to assist the commander in preparing a unit training plan which satisfies integration, cross training, training up, and sustainment training requirements for soldiers in this MOS.

Part One of the MTP shows the relationship of an MOS skill level between duty position and critical tasks. These critical tasks are grouped by task commonality into subject areas.

Section I lists subject area numbers and titles used throughout the MTP. These subject areas are used to define the training requirements for each duty position within an MOS.

Section II identifies the total training requirement for each duty position within an MOS and provides a recommendation for cross training and train-up/merger training.

- **Duty Position column**. This column lists the duty positions of the MOS, by skill level, which have different training requirements.
- Subject Area column. This column lists, by numerical key (see Section I), the subject areas a soldier must be proficient in to perform in that duty position.
- Cross Train column. This column lists the recommended duty position for which soldiers should be cross trained.
- **Train-up/Merger column**. This column lists the corresponding duty position for the next higher skill level or MOSC the soldier will merge into on promotion.

Part Two lists, by general subject areas, the critical tasks to be trained in an MOS and the type of training required (resident, integration, or sustainment).

- **Subject Area column**. This column lists the subject area number and title in the same order as Section I, Part One of the MTP.
- Task Number column. This column lists the task numbers for all tasks included in the subject area.
- Title column. This column lists the task title for each task in the subject area.

• Training Location column. This column identifies the training location where the task is first trained to soldier training publications standards. If the task is first trained to standard in the unit, the word "Unit" will be in this column. If the task is first trained to standard in the training base, it will identify, by brevity code (ANCOC, BNCOC, etc.), the resident course where the task was taught. Figure 2-1 contains a list of training locations and their corresponding brevity codes.

AIT	Advanced Individual Training
UNIT	Trained in the Unit
AIT/UNIT Only)	Advanced Individual Training (AC Only)/Unit (RC
ASI/SD	Additional Skill Identifier/Special Duty
ANCOC	Advanced NCO Course

Figure 2-1. Training Locations

• Sustainment Training Frequency column. This column indicates the recommended frequency at which the tasks should be trained to ensure soldiers maintain task proficiency. Figure 2-2 identifies the frequency codes used in this column.

BA - Biannually
AN - Annually
SA - Semiannually
QT - Quarterly
MO - Monthly
BW - Bi-weekly
WK - Weekly

Figure 2-2. Sustainment Training Frequency Codes

 Sustainment Training Skill Level column. This column lists the skill levels of the MOS for which soldiers must receive sustainment training to ensure they maintain proficiency to soldier's manual standards.

## 2-2. Subject Area Codes.

# Skill Level 1

- 1 ENGINE
- 2 ENGINE LUBRICATION SYSTEM
- 3 FUEL SYSTEM
- 4 EXHAUST SYSTEM
- 5 COOLING SYSTEM
- 6 ELECTRICAL SYSTEM
- 7 INSTRUMENT PANEL
- 8 WIRING HARNESS
- 9 TRANSMISSION
- 10 TRANSFER
- 11 PROPELLER SHAFTS
- 12 AXLES
- 13 BRAKES
- 14 WHEELS AND HUBS
- 15 STEERING
- 16 SPRINGS AND SHOCKS
- 17 BODY, HOOD AND CAB
- 18 HOIST, WINCH, AND POWER TAKEOFF
- 19 CENTRAL TIRE INFLATION SYSTEM (CTIS)
- 20 GENERAL MAINTENANCE TASKS
- 21 RECOVERY (ASI H8)

2-3. <u>Duty Position Training Requirements</u>.

See Chapter 2, Training Guide

# 2-4. Critical Tasks List.

# MOS TRAINING PLAN 63S12 CRITICAL TASKS

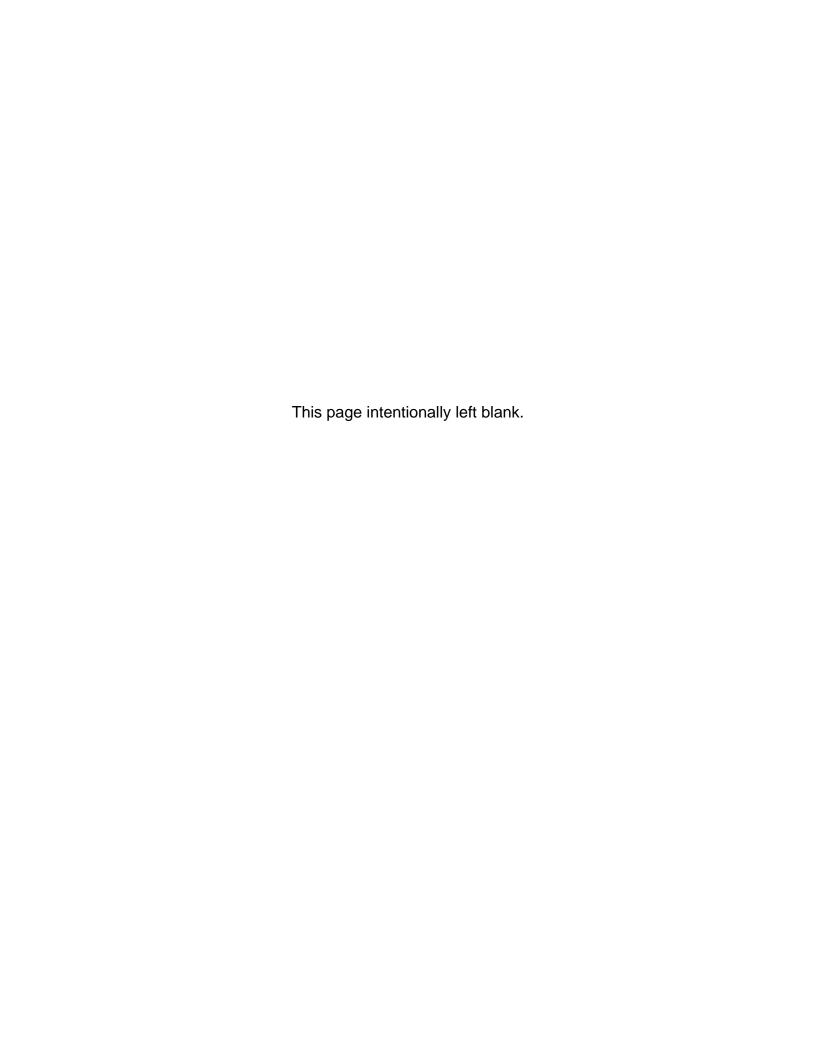
Subject Area	Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL					
	Skill Level 1									
1. ENGINE	091-63S-2001	Service Engine Assembly on a Heavy Wheeled Vehicle	AIT	SA	1-2					
2. ENGINE LUBRICATION SYSTEM	091-63S-2003	Replace Engine Oil Filter on a Heavy Wheeled Vehicle	UNIT	SA	1-2					
	091-63S-2005	Correct Malfunction of Engine Oil Cooler and Lines on a Heavy Wheeled Vehicle	UNIT	SA	1-2					
3. FUEL SYSTEM	091-63S-2007	Troubleshoot Fuel System Malfunctions on a Heavy Wheeled Vehicle	AIT	SA	1-2					
	091-63S-2009	Correct Malfunction of Fuel Pump on a Heavy Wheeled Vehicle	UNIT	SA	1-2					
	091-63S-2012	Replace Fuel Fitting and Lines on a Heavy Wheeled Vehicle	AIT	SA	1-2					
	091-63S-2013	Replace Fuel Tank on a Heavy Wheeled Vehicle	UNIT	SA	1-2					
	091-63S-2014	Replace Fuel Filter Assembly on a Heavy Wheeled Vehicle	AIT	SA	1-2					
4. EXHAUST SYSTEM	091-63S-2021	Troubleshoot Exhaust System on a Heavy Wheeled Vehicle	UNIT	SA	1-2					
	091-63S-2022	Replace Muffler on a Heavy Wheeled Vehicle	UNIT	SA	1-2					
	091-63S-2023	Replace Crossover Pipe on a Heavy Wheeled Vehicle	UNIT	SA	1-2					
5. COOLING SYSTEM	091-63S-2025	Troubleshoot Cooling System Malfunctions on a Heavy Wheeled Vehicle	AIT	SA	1-2					
	091-63S-2026	Replace Radiator on a Heavy Wheeled Vehicle	AIT	SA	1-2					
	091-63S-2029	Replace Radiator Hoses, Lines, and Clamps on a Heavy Wheeled Vehicle	AIT	SA	1-2					
	091-63S-2031	Correct Malfunction of Fan and Drive on a Heavy Wheeled Vehicle	AIT	SA	1-2					
	091-63S-2033	Correct Malfunction of Drive Belts on a Heavy Wheeled Vehicle	AIT	SA	1-2					

Subject Area	Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
6. ELECTRICAL SYSTEM	091-63S-2036	Troubleshoot Charging System Malfunction on a Heavy Wheeled Vehicle	AIT	SA	1-2
	091-63S-2037	Correct Malfunction of Alternator on a Heavy Wheeled Vehicle	AIT	SA	1-2
	091-63S-2038	Troubleshoot Starting System Malfunction on a Heavy Wheeled Vehicle	AIT	SA	1-2
	091-63S-2039	Replace Starter on a Heavy Wheeled Vehicle	UNIT	SA	1-2
	091-63S-2041	Troubleshoot Electrical System Malfunction on a Heavy Wheeled Vehicle	UNIT	SA	1-2
	091-63S-2044	Replace Protective Control Box on a Heavy Wheeled Vehicle	UNIT	SA	1-2
	091-63S-2047	Correct Malfunction of Sending Units and Warning Switches on a Heavy Wheeled Vehicle	UNIT	SA	1-2
	091-63S-2050	Correct Malfunction of Batteries on a Heavy Wheeled Vehicle	AIT	SA	1-2
7. INSTRUMENT PANEL	091-63S-2053	Troubleshoot Electrical Gauges on a Heavy Wheeled Vehicle	UNIT	SA	1-2
8. WIRING HARNESS	091-63S-2055	Repair Engine Wiring Harness on a Heavy Wheeled Vehicle	AIT	SA	1-2
	091-63S-2057	Repair Chassis Wiring Harness on a Heavy Wheeled Vehicle	AIT	SA	1-2
9. TRANSMISSION	091-63S-2058	Troubleshoot Transmission Malfunction	AIT	SA	1-2
	091-63S-2059	Service Transmission Assembly on a Heavy Wheeled Vehicle	AIT	SA	1-2
	091-63S-2061	Replace Neutral Safety Switch on a Heavy Wheeled Vehicle	UNIT	SA	1-2
10. TRANSFER	091-63S-2066	Troubleshoot Transfer Malfunctions on a Heavy Wheeled Vehicle	AIT	SA	1-2
11. PROPELLER SHAFTS	091-63S-2075	Troubleshoot Propeller Shafts on a Heavy Wheeled Vehicle	AIT	SA	1-2
	091-63S-2076	Replace Universal Joints on a Heavy Wheeled Vehicle	AIT	QT	1-2

Subject Area	Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
12. AXLES	091-63S-2078	Troubleshoot Axle Malfunctions on a Heavy Wheeled Vehicle	AIT	AIT SA	
13. BRAKES	091-63S-2097	Troubleshoot Brake System Malfunctions	AIT	SA	1-2
	091-63S-2098	Replace Brake Lines and Fittings on a Heavy Wheeled Vehicle	AIT	SA	1-2
	091-63S-2100	Replace Hand Brake Shoes on a Heavy Wheeled Vehicle	AIT	SA	1-2
	091-63S-2105	Replace Service Brake Shoes on a Heavy Wheeled Vehicle	AIT	SA	1-2
14. WHEELS AND HUBS	091-63S-2135	Correct Malfunction of Wheel and Tire Assembly on a Heavy Wheeled Vehicle	AIT	SA	1-2
15. STEERING	091-63S-2139	Troubleshoot Steering System Malfunction	AIT	SA	1-2
	091-63S-2141	Correct Malfunction of Tie Rod Assembly on a Heavy Wheeled Vehicle	UNIT	SA	1-2
	091-63S-2143	Correct Malfunction of Power Assist Cylinder on a Heavy Wheeled Vehicle	AIT	SA	1-2
	091-63S-2154	Replace Power Steering Lines and Fittings on a Heavy Wheeled Vehicle	AIT	SA	1-2
16. SPRINGS AND SHOCKS	091-63S-2161	Replace Shock Absorber on a Heavy Wheeled Vehicle	UNIT	SA	1-2
17. BODY, HOOD AND CAB	091-63S-2172	Replace Seat Belts on a Heavy Wheeled Vehicle	AIT	SA	1-2
18. HOIST, WINCH, AND POWER TAKEOFF	091-63S-2191	Troubleshoot Winch Malfunction on a Heavy Wheeled Vehicle	AIT	SA	1-2
19. CENTRAL TIRE INFLATION SYSTEM (CTIS)	091-63S-2218	Troubleshoot Central Tire Inflation System (CTIS)	AIT	SA	1-2
	091-63S-2219	Replace Air Lines and Fitting on a Heavy Wheeled Vehicle	AIT	SA	1-2
	091-63S-2220	Correct Malfunction of Air Dryer With Filter on a Heavy Wheeled Vehicle	UNIT	SA	1-2
	091-63S-2224	Replace CTIS Pressure Switch on a Heavy Wheeled Vehicle	AIT	SA	1-2

Subject Area	Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
	091-63S-2226	Correct Malfunction of CTIS Front and Rear Air Seals on a Heavy Wheeled Vehicle	AIT	SA	1-2
20. GENERAL MAINTENANCE TASKS	091-63S-2228	Maintain, Test, Measurement, and Diagnostic Equipment	AIT	SA	1-2
	091-63S-2229	Maintain Assigned Vehicle	AIT	SA	1-2
	091-63S-2230	Maintain Assigned Tool Kit	AIT	SA	1-2
	091-63S-2231	Prepare Equipment Inspection and Maintenance Worksheet (DA Form 2404 or ULLS Equivalent)	AIT/UNIT	SA	1-2
	091-63S-2234	Perform Scheduled Preventive Maintenance Checks and Services on a Heavy Wheeled Vehicle	AIT	SA	1-2
21. RECOVERY (ASI H8)	091-H8C-2001	Locate a Recovery Site	ASI/SD	SA	1-2
	091-H8C-2002	Determine Recovery Methods	ASI/SD	SA	1-2
	091-H8C-2003	Operate Tactical Communications Equipment	ASI/SD	SA	1-2
	091-H8C-2004	Operate Metal Cutting Equipment	ANCOC	SA	1-2
	091-H8W-2001	Perform Preventive Maintenance Checks And Services (PMCS) On Wheeled Recovery Vehicle	ASI/SD	SA	1-2
	091-H8W-2002	Use And Maintain Basic Issue Items (BII) Related To Wheeled Recovery Operations	ASI/SD	SA	1-2
	091-H8W-2003	Drive Wheeled Recovery Vehicle	ASI/SD	SA	1-2
	091-H8W-2004	Operate Boom/Hoist, Wheeled Recovery Vehicle	ASI/SD	SA	1-2
	091-H8W-2005	Operate The Retrieval System on a Wheeled Vehicle	ASI/SD	SA	1-2
	091-H8W-2006	Operate Winches on a Wheeled Recovery Vehicle	ASI/SD	SA	1-2
	091-H8W-2007	Recover a Mired Wheeled Vehicle	ASI/SD	SA	1-2
	091-H8W-2008	Recover an Overturned Vehicle	ASI/SD	SA	1-2
	091-H8W-2009	Tow a Wheel Vehicle Using a Retrieval System	ASI/SD	SA	1-2

Subject Area	Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
	091-H8W-2010	Tow a Wheel Vehicle Using the Boom and Tow Bar	ASI/SD	SA	1-2
21. RECOVERY (ASI H8)	091-H8W-2011	Perform Self Recovery On A Wheeled Vehicle	ASI/SD	SA	1-2
	091-H8W-2012	Perform Field Expedient Recovery on a Wheeled Vehicle	ASI/SD	SA	1-2



## **CHAPTER 3**

#### MOS/Skill Level Tasks

#### Skill Level 1

Subject Area 1: ENGINE

# Service Engine Assembly on a Heavy Wheeled Vehicle 091-63S-2001

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Service engine assembly on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures	<u>GO</u>	NO GO
Selected and used the applicable publications.		
2. Followed prescribed safety procedures.		
3. Practiced maintenance discipline.		
4. Checked for leaks.		
5. Checked for proper torque of engine mounting bolts.		
6. Serviced breather if applicable.		
7. Changed oil if required by service or the Army Oil Analysis Program(AOAP).		
8. Annotated TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
LO 9-2320-279-12	AR 385-10
TM 9-2320-279-10-1	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
TM 9-2320-279-20-3	FM 4-30.3 (FM 9-43-1)
	TM 9-243
	TM 9-8000

## Subject Area 2: ENGINE LUBRICATION SYSTEM

# Replace Engine Oil Filter on a Heavy Wheeled Vehicle 091-63S-2003

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series/915 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced engine oil filter on a heavy wheeled vehicle I AW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	ormance Measures	GO	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools and/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Removed oil drain plug and drain in suitable container.		
6.	Inspected oil for grit, foaminess, or milkiness.		
7.	Installed oil drain plug to correct torque specifications.		
8.	Removed oil filter.		
9.	Selected correct lubricant and quantity from applicable lubrication order and replenished system.		
10.	Inspected for leaks.		
11.	Verified fault was corrected.		
12.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
LO 9-2320-273-12	AR 385-10
LO 9-2320-279-12	AR 750-1
TM 9-2320-273-10	AR 750-43
TM 9-2320-273-20	DA PAM 738-750
TM 9-2320-279-10-1	FM 4-30.3 (FM 9-43-1)
TM 9-2320-279-10-2	TM 9-243
TM 9-2320-279-20-1	TM 9-8000
TM 9-2320-279-20-2	
TM 9-2320-279-20-3	

# Correct Malfunction of Engine Oil Cooler and Lines on a Heavy Wheeled Vehicle 091-63S-2005

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series/915 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of engine oil cooler and lines on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Inspected engine oil cooler and lines for leaks.		
6.	Replaced engine oil cooler and lines if necessary.		
7.	Checked for proper engine oil level.		
8.	Verified fault was corrected.		
9.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
LO 9-2320-273-12	AR 385-10
LO 9-2320-279-12	AR 750-1
TM 9-2320-273-10	AR 750-43
TM 9-2320-273-20	TM 9-2320-279-20-2
TM 9-2320-279-10-1	TM 9-243
TM 9-2320-279-10-2	
TM 9-2320-279-20-1	
TM 9-2320-279-20-3	
TM 9-8000	

## Subject Area 3: FUEL SYSTEM

# Troubleshoot Fuel System Malfunctions on a Heavy Wheeled Vehicle 091-63S-2007

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostics on fuel system malfunctions on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission capable, or maintenance actions required to be performed by other than 63S personnel were identified

Perf	ormance Measures	<u>GO</u>	NO GO
1.	Selected/use applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Checked fuel level.		
6.	Checked for fuel contamination.		
7.	Checked for leaking fuel tank.		
8.	Checked for leaking fuel lines.		
9.	Checked for proper fuel pressure.		
10.	Checked for proper fuel to injector.		
11.	Inspected injector pump.		
12.	Verified fault was corrected.		
13.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	DA PAM 738-750
TM 9-2320-279-20-2	FM 4-30.3 (FM 9-43-1)
TM 9-2320-279-20-3	TM 9-243
	TM 9-8000

# Correct Malfunction of Fuel Pump on a Heavy Wheeled Vehicle 091-63S-2009

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of fuel pump on a heavy wheeled vehicle IAW the applicable technical publications procedures and specifications. When this task was completed, the vehicle was fully mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	ormance Measures	<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Described how systems/components operate and function.		
6.	Inspected systems/components.		
7.	Performed troubleshooting of systems/components.		
8.	Replaced defective component(s).		
9.	Repaired defective component(s).		
10.	Adjusted systems/components.		
11.	Performed required PMCS.		
12.	Verified fault was corrected.		
13.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Dalatad

Requirea	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	FM 4-30.3 (FM 9-43-1)
TM 9-2320-279-20-2	TM 9-243
TM 9-2320-279-20-3	TM 9-8000

# Replace Fuel Fitting and Lines on a Heavy Wheeled Vehicle 091-63S-2012

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note. If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced fuel fitting(s) and lines on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	ormance Measures	<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Located leaking fuel line /fitting.		
6.	Removed line and fitting.		
7.	Drained excess fuel into a container.		
8.	Selected proper fitting and line.		
9.	Installed fitting and line.		
10.	Checked for leaks.		
11.	Verified fault was corrected.		
12.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier failed any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	DA PAM 738-750
TM 9-2320-279-20-2	TM 9-243
TM 9-2320-279-20-3	TM 9-8000

# Replace Fuel Tank on a Heavy Wheeled Vehicle 091-63S-2013

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced fuel tank on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Removed line and fitting.		
6.	Drained excess fuel into a container.		
7.	Drained fuel tank.		
8.	Removed fuel tank		
9.	Installed fuel tank and lines.		
10.	Added fuel into tank.		
11.	Checked for leaks.		
12.	Verified fault was corrected.		
13.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
TM 9-2320-279-20-3	TM 9-243
	TM 9-8000

# Replace Fuel Filter Assembly on a Heavy Wheeled Vehicle 091-63S-2014

**Conditions:** In a field or garrison given a representative heavy wheel vehicle (M977 series) required materials, general mechanic's tool kit, and applicable TMs.

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced fuel filter assembly on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures	<u>GO</u>	NO GO
Selected/used applicable publications.		
2. Selected/used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Drained fuel from filter assembly into a container.		
6. Removed fuel filter.		
7. Replaced filter.		
8. Checked for leaks.		
9. Verified fault was corrected.		
10. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	DA PAM 738-750
TM 9-2320-279-20-2	FM 4-30.3 (FM 9-43-1)
TM 9-2320-279-20-3	TM 9-243
	TM 9-8000

## Subject Area 4: EXHAUST SYSTEM

# Troubleshoot Exhaust System on a Heavy Wheeled Vehicle 091-63S-2021

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic's on exhaust system of a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	ormance Measures	<u>GO</u>	NO GO
1.	Selected/used applicable publications		
2.	Selected/used correct tools/TMDE.		
3.	Follow prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Checked for unusual noises while vehicle was running.		
6.	Inspected exhaust system for leaks and rust		
7.	Inspected exhaust system for loose components.		
8.	Repaired exhaust systems.		
9.	Verified fault was corrected.		
10.	Completed TAMMS forms as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

## References

Required
TM 10-3930-660-10
TM 10-3930-660-20
AR 385-10
AR 750-1
DA PAM 738-750
FM 4-30.3 (FM 9-43-1)
TM 9-243
TM 9-8000

# Replace Muffler on a Heavy Wheeled Vehicle 091-63S-2022

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced muffler on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		GO	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Checked for unusual noises while vehicle was running.		
6.	Inspected exhaust system for leaks and rust.		
7.	Removed muffler from exhaust system.		
8.	Replaced muffler assembly.		
9.	Verified fault was corrected.		
10.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

## References

Required
TM 10-3930-660-10
TM 10-3930-660-20
AR 385-10
AR 750-1
DA PAM 738-750
FM 4-30.3 (FM 9-43-1)
TM 9-243
TM 9-8000

# Replace Crossover Pipe on a Heavy Wheeled Vehicle 091-63S-2023

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced the crossover pipe on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Checked for unusual noises while vehicle was running.		
6.	Inspected exhaust system for leaks and rust.		
7.	Replaced crossover pipe.		
8.	Inspected exhaust system for leaks.		
9.	Verified fault was corrected.		
10.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	DA PAM 738-750
TM 9-2320-279-20-2	TM 9-243
TM 9-2320-279-20-3	TM 9-8000

### Subject Area 5: COOLING SYSTEM

# Troubleshoot Cooling System Malfunctions on a Heavy Wheeled Vehicle 091-63S-2025

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostics of cooling system malfunctions on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	ormance Measures	<u>GO</u>	NO GC
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Checked coolant level and mixture.		
6.	Checked fan belts.		
7.	Inspected radiator cap, hoses, surge tank, radiator, oil cooler and fitting for damage, blockage, or large leaks.		
8.	Checked thermostat.		
9.	Checked for proper operation of fan.		
10.	Checked head gasket for leaks.		
11.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
DA PAM 738-750	AR 385-10
TM 9-2320-279-10-1	AR 750-1
TM 9-2320-279-10-2	AR 750-43
TM 9-2320-279-20-1	TM 9-243
TM 9-8000	

# Replace Radiator on a Heavy Wheeled Vehicle 091-63S-2026

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced radiator on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	Performance Measures		NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Drained radiator.		
6.	Removed radiator.		
7.	Installed radiator.		
8.	Added coolant and checked level.		
9.	Verified fault was corrected.		
10.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
	TM 9-243
	TM 9-8000

# Replace Radiator Hoses, Lines, and Clamps on a Heavy Wheeled Vehicle 091-63S-2029

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced radiator hoses, lines and clamps on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully-mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures	<u>GO</u>	NO GO
Selected/used applicable publications.		
2. Selected/used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Checked coolant level and mixture.		
6. Inspected radiator, cap, hoses and clamps.		
7. Repaired cooling system as required.		
8. Verified fault was corrected.		
9. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
DA PAM 738-750	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
	TM 9-2320-279-10-1
	TM 9-243
	TM 9-8000

# Correct Malfunction of Fan and Drive on a Heavy Wheeled Vehicle 091-63S-2031

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of fan and drive on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	formance Measures	GO	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Removed radiator and shroud.		
6.	Marked position of blade.		
7.	Removed fan drive assembly.		
8.	Removed fan and fan drive.		
9.	Aligned fan blade on to fan drive tightened to 26 lb. ft.		
10.	Installed fan drive assembly to water pump.		
11.	Installed radiator and shroud.		
12.	Connected any lines, and hoses.		
13.	Verified fault was corrected.		
14.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
	TM 9-243
	TM 9-8000

# Correct Malfunction of Drive Belts on a Heavy Wheeled Vehicle 091-63S-2033

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of drive belts on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Removed radiator and shroud.		
6.	Marked position of blade.		
7.	Removed fan drive assembly.		
8.	Removed fan and fan drive.		
9.	Aligned fan blade onto fan drive tightened to 26 lb. ft.		
10.	Installed fan drive assembly to water pump.		
11.	Installed radiator and shroud.		
12.	Connected all lines and hoses.		
13.	Verified fault was corrected.		
14	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
TM 9-2320-279-20-3	TM 9-243
TM 9-2320-279-24P-1	TM 9-8000

### Subject Area 6: ELECTRICAL SYSTEM

# Troubleshoot Charging System Malfunction on a Heavy Wheeled Vehicle 091-63S-2036

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures to locate charging system malfunction on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

>	Performance Measures	GO	NO GO
	Selected/used applicable publications.		
	2. Selected/used correct tools /TMDE.		
	3. Followed prescribed safety procedures.		
	4. Practiced maintenance discipline.		
	5. Checked condition of belts.		
	6. Checked all electrical connections.		
	7. Checked voltage at alternator.		
	8. Checked protective control box.		
	9. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Dalatad

#### References

Daguirad

Requirea	Related
	AR 385-10
TM 9-2320-279-10-1	AR 750-1
TM 9-2320-279-10-2	AR 750-43
TM 9-2320-279-20-1	TM 9-243
TM 9-2320-279-20-2	TM 9-8000
TM 9-2320-279-20-3	DA PAM 738-750
TM 9-2320-279-24P-1	

# Correct Malfunction of Alternator on a Heavy Wheeled Vehicle 091-63S-2037

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series/6,000 LB VRRTFL), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of alternator on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully-mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	ormance Measures	<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Performed troubleshooting of charging system malfunctions.		
6.	Checked voltage output for 28 volts.		
7.	Adjusted voltage regulator.		
8.	Replaced voltage regulator.		
9.	Replaced alternator.		
10.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 10-3930-660-10	AR 385-10
TM 10-3930-660-20	AR 750-1
TM 9-2320-279-10-1	AR 750-43
TM 9-2320-279-10-2	DA PAM 738-750
TM 9-2320-279-20-1	TM 9-243
TM 9-2320-279-20-2	TM 9-8000

# Troubleshoot Starting System Malfunction on a Heavy Wheeled Vehicle 091-63S-2038

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures to locate starting system malfunction on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully-mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures	<u>GO</u>	NO GO
Selected/used applicable publications.		
2. Selected/used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Performed troubleshooting of starting system malfunctions.		
6. Ensured transmission range selector is in (N)neutral.		
7. Checked battery gage read 22-28 volts with switch on.		
8. Checked voltage at the batteries.		
9. Checked neutral safety switch.		
10. Checked engine start switch.		
11 Checked circuit breaker.		
12. Checked starter relay for 28 volts.		
13. Tested starter motor.		
14. Replaced starter.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
	TM 9-243
	TM 9-8000

# Replace Starter on a Heavy Wheeled Vehicle 091-63S-2039

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced starter on a heavy wheeled vehicle IAW the applicable technical lubrications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures	<u>GO</u>	NO GC
Selected/used applicable publications.		
2. Selected/used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Disconnected batteries.		
<ol><li>Tagged and marked starter motor cables and solenoid wires before disconnecting.</li></ol>		
7. Supported starter motor.		
8. Removed starter assembly.		
9. Installed starter assembly.		
10. Connected starter motor cables and solenoid wires		
11. Verified fault was corrected.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
DA PAM 738-750	AR 385-10
TM 9-2320-279-10-1	AR 750-1
TM 9-2320-279-10-2	AR 750-43
TM 9-2320-279-20-1	TM 9-243
TM 9-2320-279-20-2	TM 9-8000
TM 9-2320-279-24P-1	

# Troubleshoot Electrical System Malfunction on a Heavy Wheeled Vehicle 091-63S-2041

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series / 6,000 VRRTFL), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures to locate electrical system malfunction on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures	<u>GO</u>	NO GO
Selected/used applicable publications.		
2. Selected/used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Performed troubleshooting of electrical system malfunctions.		
6. Verified was corrected.		
7. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
DA PAM 738-750	AR 385-10
TM 10-3930-660-10	AR 750-1
TM 10-3930-660-20	AR 750-43
TM 9-2320-279-10-1	
TM 9-2320-279-10-2	
TM 9-2320-279-20-1	
TM 9-2320-279-20-2	
TM 9-2320-279-20-3	
TM 9-2320-279-24P-1	
TM 9-243	
TM 9-8000	

# Replace Protective Control Box on a Heavy Wheeled Vehicle 091-63S-2044

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced protective control box on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully-mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures	<u>GO</u>	NO GO
Selected/used applicable publications.		
2. Selected/used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Performed troubleshooting of protective control box components.		
6. Repaired protective control box components.		
7. Replaced defective protective control box.		
8. Verified fault was corrected.		
9. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
TM 9-2320-279-20-3	TM 9-243
	TM 9-8000

# Correct Malfunction of Sending Units and Warning Switches on a Heavy Wheeled Vehicle 091-63S-2047

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series / 6,000 VRRTFL), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of sending units and warning switches on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		NO GO
Selected/used applicable publications.		
2. Selected/used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Checked oil pressure gage and warning lights circuits for continuity.		
6. Tested oil pressure sending unit and gage.		
7. Verified fault was corrected.		
8. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
DA PAM 738-750	AR 385-10
TM 10-3930-660-10	AR 750-1
TM 10-3930-660-20	AR 750-43
TM 9-2320-279-10-1	TM 9-243
TM 9-2320-279-10-2	
TM 9-2320-279-20-1	
TM 9-2320-279-20-2	
TM 9-2320-279-20-3	
TM 9-2320-279-24P-1	
TM 9-8000	

# Correct Malfunction of Batteries on a Heavy Wheeled Vehicle 091-63S-2050

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of batteries on a heavy wheeled vehicle IAW the applicable technical publications, procedures. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	ormance Measures	GO	NO GC
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Checked battery terminals.		
6.	Conducted specific gravity test on battery cells.		
7.	Disconnected negative battery cable first.		
8.	Removed defective batteries.		
9.	Installed new batteries.		
10.	Serviced batteries.		
11.	Verified fault was corrected		
12.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed Score the soldier NO GO if any step was failed If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
	TM 9-243
	TM 9-8000

### Subject Area 7: INSTRUMENT PANEL

# Troubleshoot Electrical Gauges on a Heavy Wheeled Vehicle 091-63S-2053

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures of electrical gauges on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/ used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Disconnected batteries.		
6.	Checked gages for continuity.		
7.	Connected batteries.		
8.	Checked for voltage at gauge.		
9.	Inspected warning lights.		
10.	Checked resistance at gauge.		
11.	Checked sending unit.		
12.	Verified fault has been corrected.		
13.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
TM 9-2320-279-20-3	TM 9-8000
	TM 9-243
	AR 385-10

### Subject Area 8: WIRING HARNESS

# Repair Engine Wiring Harness on a heavy Wheeled Vehicle 091-63S-2055

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Repaired engine wiring harness on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	formance Measures	GO	NO GO
1.	Selected/used applicable publications.		
2.	Selected /used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Visually inspected wiring harness.		
6.	Checked for voltage at component.		
7.	Checked ground.		
8.	Repaired wire as required.		
9.	Verified fault was corrected.		
10.	Completed. TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
TM 9-2320-279-20-3	TM 9-243
	TM 9-8000

# Repair Chassis Wiring Harness on a Heavy Wheeled Vehicle 091-63S-2057

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Repaired chassis wiring harness on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified..

Perf	formance Measures	GO	NO GO
1.	Selected /used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Visually inspected all wires.		
6.	Checked for voltage at component.		
7.	Checked ground.		
8.	Repaired wire.		
9.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-2	AR 750-43
TM 9-2320-279-20-3	DA PAM 738-750
TM 10-3930-660-12	TM 9-243
	TM 9-8000

### Subject Area 9: TRANSMISSION

# Troubleshoot Transmission Malfunction 091-63S-2058

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977series/6,000 LB VRRTFL, required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures to locate transmission malfunction IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully-mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

)	Performance Measures	<u>GO</u>	NO GO
	Selected /used applicable publications.		
	2. Selected /used correct tools/TMDE.		
	3. Followed prescribed safety procedures.		
	4. Practiced maintenance discipline.		
	5. Checked fluid level.		
	6. Checked for bent or broken linkage.		
	7. Adjusted linkage.		
	8. Repaired transmission components.		
	9. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 10-3930-660-10	AR 385-10
TM 10-3930-660-20	AR 750-1
TM 9-2320-279-10-1	AR 750-43
TM 9-2320-279-10-2	DA PAM 738-750
TM 9-2320-279-20-1	TM 9-243
TM 9-2320-363-20-1	TM 9-8000
TM 9-2320-363-20-2	

# Service Transmission Assembly on a Heavy Wheeled Vehicle 091-63S-2059

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Serviced transmission assembly on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		<u>GO</u>	NO GC
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Set vehicle parking brake.		
6.	Inspected vehicle at operating temperature.		
7.	Inspected oil for grit, foaminess or milkiness.		
8.	Checked for cracks, loose belts, leaks obvious damage.		
9.	Checked oil pan belts and drain plug for looseness.		
10.	Inspected output shaft seal for damage and leaks.		
11.	Inspected shift cable for kinks, play, wear or damage.		
12.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	TM 9-243
TM 9-2320-279-20-3	TM 9-8000
TM 9-2320-279-20-3	TM 9-8000
	DA Pam 738-750

# Replace Neutral Safety Switch on a Heavy Wheeled Vehicle 091-63S-2061

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced neutral safety switch on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures	<u>GO</u>	NO GO
Selected/used applicable publications.		
2. Selected/used correct tools /TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Tagged and marked wires.		
6. Removed neutral safety switch.		
7. Replaced neutral safety switch.		
8. Verified fault has been corrected.		
9. Completed TAMMS forms as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-20-1	AR 750-1
TM 9-2320-279-20-2	AR 750-43
	DA PAM 738-750
	TM 9-2320-279-10-2
	TM 9-243
	TM 9-8000

### Subject Area 10: TRANSFER

# Troubleshoot Transfer Malfunctions on a Heavy Wheeled Vehicle 091-63S-2066

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M1074 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures to locate transfer malfunctions on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		GO	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Inspected transfer assembly/components.		
6.	Performed troubleshooting of transfer assembly.		
7.	Replaced defective components of the transfer assembly.		
8.	Verified fault was corrected.		
9.	Completed TAMMS forms as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-364-10	AR 385-10
TM 9-2320-364-20-1	AR 750-1
TM 9-2320-364-20-2	AR 750-43
	DA PAM 738-750
	TM 9-243
	TM 9-8000

### Subject Area 11: PROPELLAR SHAFTS

# Troubleshoot Propeller Shafts on a Heavy Wheeled Vehicle 091-63S-2075

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures on propeller shafts on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		<u>GO</u>	NO GC
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Inspected propeller shaft assembly.		
6.	Performed troubleshooting of propeller shaft assembly.		
7.	Replaced defective propeller shaft assembly.		
8.	Verified fault was corrected.		
9.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-2	AR 385-10
TM 9-2320-279-20-1	AR 750-1
TM 9-2320-279-20-2	AR 750-43
	DA PAM 738-750
	TM 9-243
	TM 9-8000

# Replace Universal Joints on a Heavy Wheeled Vehicle 091-63S-2076

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced universal joints on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		NO GO
1. Selected/used applicable publications.		
2. Selected/used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Removed universal joints assembly.		
6. Installed in reverse order.		
7. Verified fault was corrected		
8. Completed TAMMS forms, as required		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-2	AR 385-10
TM 9-2320-279-20-1	AR 750-1
TM 9-2320-279-20-2	AR 750-43
	DA PAM 738-750
	TM 9-243
	TM 9-8000

### Subject Area 12: AXLES

# Troubleshoot Axle Malfunctions on a Heavy Wheeled Vehicle 091-63S-2078

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures to locate axle malfunctions on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task is completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Inspected axle.		
6.	Performed troubleshooting of the axle assembly.		
7.	Repaired axle assembly.		
8.	Verified fault was corrected.		
9.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Related
AR 385-10
AR 750-1
AR 750-43
DA PAM 738-750
TM 9-243
TM 9-8000

### Subject Area 13: BRAKES

# Troubleshoot Brake System Malfunctions 091-63S-2097

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series/M1000series/6,000 LB VRRTFL), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures to locate brake system malfunctions IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission- capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		GO	NO GC
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Checked air pressure gage for correct PSI.		
6.	Checked all lines valves, and hoses for leaks.		
7.	Checked for proper mechanical adjustments.		
8.	Checked operation of air brake chambers.		
9.	Removed brake drum.		
10.	Checked all moving brake parts for binding or damage.		
11.	Verify fault was corrected.		
12.	Complete TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
DA PAM 738-750	AR 385-10
TM 10-3930-660-10	AR 750-1
TM 10-3930-660-20	AR 750-43
TM 9-2320-279-10-1	TM 9-243

# Replace Brake Lines and Fittings on a Heavy Wheeled Vehicle 091-63S-2098

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series/M1000series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced brake lines and fittings on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	formance Measures	GO	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practice maintenance discipline.		
5.	Set parking brake.		
6.	Drained air pressure.		
7.	Used a line wrench, disconnected defective brake line from fitting.		
8.	Drained fluid into container.		
9.	Removed defective fitting.		
10.	Installed new fitting and line.		
11.	Filled and bled brake system.		
12.	Checked for leaks.		
13.	Verified fault was corrected.		
14.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** core the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-360-20-2	AR 385-10
TM 9-2320-279-10-1	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
TM 9-2320-360-10	TM 9-243
TM 9-2320-360-20-1	TM 9-8000

# Replace Hand Brake Shoes on a Heavy Wheeled Vehicle 091-63S-2100

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced hand brake shoes on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		NO GO
Selected/used applicable publications.		
2. Selected/used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Removed parking brake shoes.		
6. Installed parking brake shoes in reverse order.		
7. Adjusted parking brake.		
8. Verified fault was corrected.		
9. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

### References Required

Related
AR 385-10
AR 750-1
AR 750-43
TM 9-243
TM 9-8000
DA Pam 738-750

# Replace Service Brake Shoes on a Heavy Wheeled Vehicle 091-63S-2105

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced service brake shoes on an heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Caged brakes.		
6.	Removed hub and drum assembly.		
7.	Removed springs and brake components.		
8.	Removed brake shoes.		
9.	Installed new brake shoes.		
10.	Installed springs and brake components.		
11.	Installed hub and drum assembly.		
12.	Performed brake adjustment.		
13.	Completed TAMMS forms as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Related
AR 385-10
AR 750-1
AR 750-43
DA PAM 738-750
TM 9-243
TM 9-8000

### Subject Area 14: WHEELS AND HUBS

# Correct Malfunction of Wheel and Tire Assembly on a Heavy Wheeled Vehicle 091-63S-2135

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of wheel and tire assembly on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Inspected wheel and tire assembly.		
6.	Repaired tire assembly.		
7.	Replaced tire assembly.		
8.	Verified fault was corrected.		
9.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-1	AR 750-43
TM 9-2320-279-20-2	DA PAM 738-750
TM 9-2320-279-20-3	TM 9-243
	TM 9-8000

### Subject Area 15: STEERING

# Troubleshoot Steering System Malfunction 091-63S-2139

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures to locate steering system malfunction IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	formance Measures	GO	NO GO
1.	Selected/used applicable publications.		<del></del>
2.	Selected/corrected tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Checked tire pressure.		
6.	Checked hydraulic fluid level.		
7.	Checked hoses and fittings for leaks.		
8.	Checked all steering linkage.		
9.	Checked steering gear box for loose mounting or damage.		<del></del>
10.	Checked suspension system.		
11.	Checked wheel bearing.		
12.	Checked lug nuts.		
13.	Checked leaf spring.		
14.	Verify fault was corrected.		
15.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

### References

**Required** TM 9-2330-381-14 Related AR 385-10 AR 750-1 AR 750-43 DA PAM 738-750 TM 9-243 TM 9-8000

# Correct Malfunction of Tie Rod Assembly on a Heavy Wheeled Vehicle 091-63S-2141

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of tie rod assembly on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission- capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures	GO	NO GO
Selected/used applicable publications.		
2. Selected /used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Practiced maintenance discipline.		
5. Set parking brake.		
6. Raised vehicle off of ground.		
7. Removed cotter pin and castle nut securing tie rod to center link and geared.		
8. Removed tie rod using puller.		
9. Installed new rod in reverse order and torque.		
10. Installed new cotter pin.		
11. Lubed vehicle.		
12. Conducted front end alignment		
13. Verified fault was corrected.		
14. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-2	AR 750-43
TM 9-2320-279-20-3	DA PAM 738-750
	TM 9-243
	TM 9-8000

# Correct Malfunction of Power Assist Cylinder on a Heavy Wheeled Vehicle 091-63S-2143

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of power assist cylinder on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Inspected power assist cylinder.		
6.	Corrected malfunction of power assist cylinder.		
7.	Checked travel adjustment.		
8.	Verified fault was corrected.		
9.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-2	AR 750-43
TM 9-2320-279-20-3	DA PAM 738-750
	TM 9-243
	TM 9-8000

# Replace Power Steering Lines and Fittings on a Heavy Wheeled Vehicle 091-63S-2154

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced power steering lines and fittings on a heavy wheeled vehicle IAW the applicable technical publications, procedures and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	ormance Measures	GO	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Removed steering cylinder stone shield.		
6.	Tagged all lines.		
7.	Used container to catch fluid.		
8.	Installed components in reverse order.		
9.	Checked for leaks.		
10.	Installed springs and brake components.		
11.	Verified fault was corrected.		
12.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

### References

Required
TM 9-2330-381-14
AR 385-10
AR 750-1
AR 750-43
DA PAM 738-750
TM 9-243

TM 9-8000

### Subject Area 16: SPRINGS AND SHOCKS

# Replace Shock Absorber on a Heavy Wheeled Vehicle 091-63S-2161

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced shock absorber on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	ormance Measures	GO	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Raised and supported vehicle.		
6.	Removed wheel.		
7.	Removed lock nuts and discards.		
8.	Marked alignment of shock absorber in reverse order.		
9.	Installed wheel and lowered vehicle.		
10.	Verified fault was corrected.		
11.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

0. 0.1000	
Required	Related
TM 9-2320-279-10-1	AR 385-10
TM 9-2320-279-10-2	AR 750-1
TM 9-2320-279-20-2	AR 750-43
TM 9-2320-279-20-3	DA PAM 738-750
	TM 9-243
	TM 9-8000

### Subject Area 17: BODY, HOOD AND CAB

# Replace Seat Belts on a Heavy Wheeled Vehicle 091-63S-2172

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced seat belts on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures	<u>GO</u>	NO GO
Selected and used correct publications.		
2. Corrected malfunction of seat belts.		
3. Inspected the seat belts on a heavy wheeled vehicle.		
4. Repaired the seat belts on a heavy wheeled vehicle.		
5. Replaced the seat belts on a heavy wheeled vehicle.		
6. Verified fault was corrected.		
7. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what were done wrong and how to do it correctly.

Related
AR 385-10
AR 750-1
AR 750-43
DA PAM 738-750
TM 9-243
TM 9-8000

#### Subject Area 18: HOIST, WINCH, AND POWER TAKEOFF

# Troubleshoot Winch Malfunction on a Heavy Wheeled Vehicle 091-63S-2191

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures to locate winch malfunction on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		NO GO
Selected and used correct publications.		
2. Used and operate winch IAW TMs and FM.		
3. Corrected malfunction of winch.		
4. Inspected winch assembly/components.		
5. Measured high pressure filter input flow.		
6. Performed a final operational check.		
7. Adjusted main relief valve pressure.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

### References

Required Related
TM 9-2320-363-20-1 AR 385-10
TM 9-2320-363-20-2 AR 750-1
AR 750-43
DA PAM 738-750
TM 9-243
TM 9-8000

### Subject Area 19: CENTRAL TIRE INFLATION SYSTEM (CTIS)

# Troubleshoot Central Tire Inflation System (CTIS) 091-63S-2218

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M1070/M1075), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed diagnostic procedures to locate malfunctions of Central Tire Inflation System (CTIS) IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures			NO GO
1. Sele	ected/used applicable publications.		
2. Sele	ected/used correct tools/TMDE.		
3. Follo	owed prescribed safety procedures.		
4. Che	ecked for air leaks.		
5. Che	ecked all CTI connectors are properly connected.		
6. Che	ecked voltage at circuit breaker.		
7. Che	ecked continuity between the wiring harness and terminals.		
8. Veri	ified fault was corrected.		
9. Con	mpleted TAMMS forms as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-360-10	AR 750-1
TM 9-2320-360-20-1	AR 750-43
TM 9-2320-360-20-2	TM 9-243
TM 9-2320-364-10	TM 9-8000

### References

Required

TM 9-2320-364-20-1

TM 9-2320-364-20-2

TM 9-2320-364-20-3

Related

DA Pam 738-750

# Replace Air Lines and Fitting on a Heavy Wheeled Vehicle 091-63S-2219

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M1070 series/M1075 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced air lines and fitting on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures			NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Drained air system.		
5.	Removed air lines.		
6.	Installed air lines.		
7.	Verified fault was corrected.		
8.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
DA PAM 738-750	AR 385-10
TM 9-2320-360-10	AR 750-1
TM 9-2320-360-20-1	AR 750-43
TM 9-2320-360-20-2	TM 9-243
TM 9-2320-364-10	TM 9-8000
TM 9-2320-364-20-1	
TM 9-2320-364-20-2	
TM 9-2320-364-20-3	

# Correct Malfunction of Air Dryer With Filter on a Heavy Wheeled Vehicle 091-63S-2220

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of air dryer with filter on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		GO	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Checked gages for correct PSI.		
5.	Checked air governor for proper adjustment.		
6.	Checked valves on air dryer leaks or damage.		
7.	Verified fault was corrected		
8.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-360-10	AR 385-10
TM 9-2320-360-20-1	AR 750-1
TM 9-2320-360-20-2	AR 750-43
	DA PAM 738-750
	TM 9-243
	TM 9-8000

# Replace CTIS Pressure Switch on a Heavy Wheeled Vehicle 091-63S-2224

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M1070 series/M1075 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Replaced Central Tire Inflation System (CTIS) pressure switch on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission-capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Perf	Performance Measures		NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Released air pressure before removing air system components.		
6.	Removed air lines from pressure switch.		
7.	Removed air lines from pressure switch.		
8.	Disconnected pressure switch from wiring harness.		
9.	Wrapped fittings with sealing tape.		
10.	Replaced pressure switch into CTIS systems.		
11.	Installed lines and connected wiring harness.		
12.	Tied lines back with new plastic tie-downs.		
13.	Verified fault was corrected.		
14.	Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-360-10	AR 385-10
TM 9-2320-360-20-1	AR 750-1
TM 9-2320-360-20-2	AR 750-43
TM 9-2320-364-10	DA PAM 738-750
TM 9-2320-364-20-1	TM 9-243
TM 9-2320-364-20-2	TM 9-8000
TM 9-2320-364-20-3	

# Correct Malfunction of CTIS Front and Rear Air Seals on a Heavy Wheeled Vehicle 091-63S-2226

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M1070 series/M1075 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Corrected malfunction of central tire inflation system (CTIS) front and rear air seals on a heavy wheeled vehicle IAW the applicable technical publications, procedures, and specifications. When this task was completed, the vehicle was fully mission capable, or maintenance actions required to be performed by other than 63S personnel were identified.

Performance Measures		<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Selected/used correct tools/TMDE.		
3.	Followed prescribed safety procedures.		
4.	Practiced maintenance discipline.		
5.	Released air pressure before removing air system components.		
6.	Removed malfunctioning wheel valve.		
7.	Ensured compressed air source does not exceed 30 PSI.		
8.	Inspected wheel valve assembly for cracks leaks or stripped threads.		
9.	Checked air lines for damage, crimps, or leaks.		
10.	Verified fault was corrected.		
11.	Completed TAMMS forms as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

CICIOCO	
Required	Related
TM 9-2320-360-10	AR 385-10
TM 9-2320-360-20-1	AR 750-1
TM 9-2320-360-20-2	AR 750-43
TM 9-2320-364-10	DA PAM 738-750
TM 9-2320-364-20-1	TM 9-243
TM 9-2320-364-20-2	TM 9-8000
TM 9-2320-364-20-3	

# Subject Area 20: GENERAL MAINTENANCE TASKS

# Maintain Test, Measurement, and Diagnostic Equipment 091-63S-2228

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Maintained Test, Measurement, and Diagnostic Equipment (TMDE) IAW applicable technical manuals.

Performance Measures	<u>GO</u>	NO GO
Selected applicable technical publications.		
2. Followed all safety procedures.		
3.Set up, tested, and operated the AN/PSM-45A multimeter.		
4. Set up, tested, and operated the AN/PSM-80V2 Contact Test Set (CTS).		
<ol><li>Set up, tested, and operated the Soldier's Portable On-System Repair Tool (SPORT).</li></ol>		
6. Utilized IETM with Point to Point Software to diagnose faults		
7. Maintained equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 11-6625-3052-14	AR 385-10
TM 9-2320-279-10-1	AR 750-1
TM 9-2320-279-10-2	AR 750-43
TM 9-2320-279-20-1	DA PAM 738-750
TM 9-2320-279-20-2	TM 9-243
TM 9-2320-279-20-3	TM 9-8000
TM 9-4910-571-12&P	
TM 9-6625-2301-12	

# Maintain Assigned Vehicle 091-63S-2229

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Inspected, tested, adjusted and operated the assigned vehicle; repaired/replaced components; and performed required PMCS IAW technical publications, procedures, and specifications.

Performance Measures	GO	NO GO
1. Selected/used applicable publications.		
2. Followed prescribed safety procedures.		
3. Practiced maintenance discipline.		
4. Used the operator -10 manual PMCS table to inspect vehicle.		
5. Identified shortcomings and deficiencies were corrected.		
6. Checked the uncorrected fault record for pre noted shortcomings.		
<ol><li>Make needed adjustments, repairs or replacements, as outlined in the -10 manual.</li></ol>		
8. Completed TAMMS forms ,as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-279-10-1	AR 750-1
TM 9-2320-279-10-2	AR 750-43
TM 9-2320-279-20-1	TM 9-243
TM 9-2320-279-20-2	TM 9-8000
TM 9-2320-279-20-3	DA PAM 738-750

# Maintain Assigned Tool Kit 091-63S-2230

**Conditions:** In a garrison or field environment Given required material, general mechanic's tool kit applicable TM(s).

**Standards:** Maintained assigned tool kit IAW technical publications, procedures, and specifications.

Performance Measures		NO GO
Selected/used applicable publications.		
2. Followed prescribed safety procedures.		
3. Practiced maintenance discipline.		
4. Inspected tool box for broken rivets or welds.		
5. Repaired any broken rivets or welds with rivet gun.		
6. Inspected tools for serviceability.		
7. Repaired or replaced any unserviceable tools.		
8. Cleaned tools using applicable lubricants.		
9. Stored tool box.		
10. Completed TAMMS forms, as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

# References

RequiredRelatedSC 5180-95-N26AR 385-10TM 9-243AR 750-1AR 750-43DA PAM 738-750

# Prepare Equipment Inspection and Maintenance Worksheet (DA Form 2404 or ULLS Equivalent) 091-63S-2231

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 (series), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Prepared equipment Inspection and maintenance worksheet (DA Form 2404 or ULLS equivalent) IAW technical publications, procedures, and specifications.

Performance Measures		GO	NO GO
	Selected/used applicable publications.		
	2. Completed heading entries on DA Form 2404		
	3. Completed inspection/ maintenance entries on DA Form 2404 as required.		
	4. Selected/used correct tools/TMDE.		
	5. Completed inspection/ maintenance entries on DA Form 2404 as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
DA FORM 2404	AR 385-10
AR 750-1	AR 750-43
	TM 9-243
	TM 9-8000

# Perform Scheduled Preventive Maintenance Checks and Services on a Heavy Wheeled Vehicle 091-63S-2234

**Conditions:** In a field or garrison environment given a representative heavy wheel vehicle, (M977 series/M1000/6,000 VRRTFL), required materials, general mechanic's tool kit, and applicable TM(s).

Note: If representative equipment is not available, use applicable equipment and associated references.

**Standards:** Performed scheduled Preventive Maintenance Checks and Services (PMCS) on a heavy wheeled vehicle IAW technical publications, procedures, and specifications.

Performance Measures	<u>GO</u>	NO GO
Selected/used applicable publications.		
2. Selected/used correct tools/TMDE.		
3. Followed prescribed safety procedures.		
4. Determined readiness of system components.		
5. Identified deficiencies and shortcomings.		
6. Corrected shortcomings identified as operator maintenance.		
7. Ordered all parts required for next service.		
8. Completed TAMMS form as required.		

**Evaluation Guidance:** Score the soldier GO if all steps are passed. Score the soldier NO GO if any step is failed. If the soldier fails any step, show what were done wrong and how to do it correctly.

Required	Related
AR 750-43	AR 385-10
TM 10-3930-660-10	AR 750-1
TM 10-3930-660-20	DA PAM 738-750
TM 9-2320-279-10-1	TM 9-243
TM 9-2320-279-10-2	TM 9-8000
TM 9-2320-279-20-1	
TM 9-2320-283-10	
TM 9-2320-283-20-1	

# Subject Area 21: RECOVERY (ASI H8)

# Locate a Recovery Site 091-H8C-2001

**Conditions:** In a field or garrison environment given a representative track vehicle (M88 series), required materials, general mechanic's tool kit, and applicable TM(s).

**Standards:** Locate a recovery site to within 10 meters and identify primary and alternate recovery routes determining distance for both with no greater than a 10% error.

Performance Measures	<u>GO</u>	NO GO
Selected/used applicable publications.		
2. Identified terrain features.		
3. Identified map symbols and colors.		
4. Located site using military grid reference system.		
5. Calculated distance.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
FM 21-26	TC 43-35
FM 21-31	

# Determine Recovery Methods 091-H8C-2002

**Conditions:** In a field or garrison environment given a representative track vehicle (M88 series), required materials, general mechanic's tool kit, and applicable TM(s).

**Standards:** Determine Recovery Methods, source of effort and mechanical advantage needed IAW references.

Performance Measures	<u>GO</u>	NO GO
Selected and used applicable publications.		
2. Reconnoitered area.		
3. Estimated situation.		
4. Calculated ratios.		
5. Obtained resistance.		
6. Verified solution.		
7. Erected rigging.		
8. Rechecked rigging.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
FM 5-125	
FM 9-43-2	
TC 43-35	

# Operate Tactical Communications Equipment 091-H8C-2003

**Conditions:** In a classroom/field environment given a FM radio, recovery vehicle, TM 11-5820-890-10-3, FM 24-35, and training SOI/DRYAD.

**Standards:** The soldier will state the procedures to install, operate, use correct radio procedures for clear concise and secure communication IAW the appropriate publications.

Performance M	easures	<u>GO</u>	NO GO
1. Selected/us	sed applicable publications.		
2. Prepared c	ommunication equipment for operation.		
3. Send taction	al communications.		
4. Received to	actical communications.		
5. Shut down	tactical communication operation.		
6. Followed p	rescribed safety procedures.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
FM 24-35	FM 24-18
TM 11-5820-890-10-3	TC 43-35
	TM 11-5820-401-10-1
	TM 11-5820-401-10-2
	TM 11-5820-401-10-4
	TM 11-5830-340-12

# Operate Metal Cutting Equipment 091-H8C-2004

**Conditions:** In a field or garrison environment given a representative track vehicle (M88 series), required materials, general mechanic's tool kit, and applicable TM(s).

**Standards:** Set up the oxyacetylene equipment, cut metal, and practice shop safety IAW the procedures in the applicable references.

Performance Measures	<u>GO</u>	NO GO
Selected/used applicable publications.		
2. Determined the method to cut metal.		
3. Prepared metal cutting equipment as required.		
4. Cut metal.		
5. Secured metal cutting equipment.		
6. Followed prescribed safety procedures.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

# References

Required TC 9-237

Related AR 385-10 AR 750-1 DA PAM 738-750 TC 43-35 TM 9-243

# Perform Preventive Maintenance Checks And Services (PMCS) On Wheeled Recovery Vehicle 091-H8W-2001

Conditions: In a garrison or field environment with assistance and supervision, given applicable recovery vehicle with BII, general mechanic's tool kit, lubricants if required, applicable special tools/TMDE, required safety equipment, applicable forms and references, and repair parts, if needed.

Standards: The PMCS must be performed IAW the applicable technical publications' procedures and specifications. When this task is completed, the vehicle must be fully mission capable or maintenance actions required to be performed by other than recovery personnel must be identified.

Performance Measures	<u>GO</u>	NO GO
Selected/used applicable publications.		
2. Selected/used proper tools/TMDE.		
3. Described operation of vehicle systems/subsystems.		
4. Determined readiness of system components.		
5. Identified deficiencies and shortcomings.		
6. Corrected shortcomings identified as operator maintenance.		
7. Followed prescribed safety procedures.		

Evaluation Guidance: Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

# References

Required TM 9-2320-260-10 Related

DA PAM 738-750 TM 11-5820-401-10-1

TM 11-5820-401-10-2

TM 11-5820-401-10-4 TM 11-5820-498-12

TM 11-5830-340-12

TM 9-243 TM 9-8000

# Use And Maintain Basic Issue Items (BII) Related To Wheeled Recovery Operations 091-H8W-2002

**Conditions:** In a garrison or field environment with assistance and supervision, given applicable recovery vehicle with BII, general mechanic's tool kit, lubricants if required, applicable special tools/TMDE, required safety equipment, applicable forms and references. Use and maintain basic issue items (BII) related to wheeled recovery operations.

**Standards:** Use and maintain basic issue items (BII) Related To Wheeled Recovery Operations IAW applicable FM procedures and specifications. NOTE: All safety precautions must have been observed.

Performance Measures		NO GO	
Selected/used correct publications.			
2. Used M578 to recover mired vehicle.			
3. Use winch.			
4. Used block and tackle.			
5. Used BII to recover mired vehicle.			

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TC 43-35	AR 385-10
TM 9-2320-260-10	AR 750-1
TM 9-2320-272-10	AR 750-43
TM 9-2320-280-10	DA PAM 738-750
	TM 9-243

# Drive Wheeled Recovery Vehicle 091-H8W-2003

**Conditions:** In a garrison or field environment with assistance and supervision, given applicable recovery vehicle with BII, general mechanic's tool kit, lubricants if required, applicable special tools/TMDE, required safety equipment, applicable forms and references, and repair parts, if needed.

**Standards:** Drive a wheeled recovery vehicle, tow a disabled vehicle to a predetermined location using the boom and tow bar without causing damage to the equipment or injury to personnel IAW applicable publications.

Performance Measures	<u>GO</u>	NO GO
Selected/used correct publications.		
2. Performed PMCS.		
3. Operated vehicle IAW TM.		
4. Completed TAMMS forms as required.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required
DA PAM 738-750
TM 9-2320-260-10
TM 9-2320-272-10
TM 9-2320-279-10-1
TM 9-2320-279-10-2

**Related** AR 385-10 TC 43-35

# Operate Boom/Hoist, Wheeled Recovery Vehicle 091-H8W-2004

**Conditions:** In a garrison or field environment with assistance and supervision, given applicable recovery vehicle with BII, general mechanic's tool kit, lubricants if required, applicable special tools/TMDE, required safety equipment, applicable forms and references, and repair parts, if needed.

**Standards:** Operate boom/hoist to recovery a disabled vehicle and tow bar without causing damage to the equipment or injury to personnel IAW applicable publications.

Performance Measures	<u>GO</u>	NO GO
Selected/used correct publications.		
2. Used/operated boom/hoist IAW TMs and FM.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-260-10	AR 385-10
TM 9-2320-272-10	DA PAM 738-750
TM 9-2320-279-10-1	DA PAM 738-751
TM 9-2320-279-10-2	TC 43-35

# Operate The Retrieval System on a Wheeled Vehicle 091-H8W-2005

**Conditions:** In a garrison or field environment with assistance and supervision, given applicable recovery vehicle with BII, general mechanic's tool kit, lubricants if required, applicable special tools/TMDE, required safety equipment, applicable forms and references, and repair parts, if needed. Operate wheeled recovery vehicle retrieval system (HEMTT).

**Standards:** Operate wheeled recovery vehicle retrieval system (HEMTT)recover a vehicle and tow without causing damage to the equipment or injury to personnel IAW applicable publications.

Performance Measures	<u>GO</u>	NO GO
Position recovery vehicle.		
2. Select proper vehicle hookup devices.		
3. Connect hookup devices to disabled vehicle.		
4. Connect retrieval system to disabled vehicle.		
5. Tow disabled vehicle.		
Disconnect retrieval system.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

### References

Required
TM 9-2320-279-10-1
TM 9-2320-279-10-2
AR 385-10
AR 750-1
DA PAM 738-750
FM 21-60
FM 4-30.3 (FM 9-43-1)
FM 9-43-2
TC 43-35

# Operate Winches on a Wheeled Recovery Vehicle 091-H8W-2006

**Conditions:** In a garrison or field environment with assistance and supervision, given applicable recovery vehicle with BII, general mechanic's tool kit, lubricants if required, applicable special tools/TMDE, required safety equipment, applicable forms and references, and repair parts, if needed.

**Standards:** Operate winches to recover an wheeled vehicle and tow without causing damage to the equipment or injury to personnel IAW applicable publications.

Performance Measures	<u>GO</u>	NO GO
Selected/used correct publications.		
2. Used/operated winches IAW TMs and FM.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

Required	Related
TM 9-2320-272-10	AR 385-10
TM 9-2320-279-10-1	AR 750-1
TM 9-2320-279-10-2	DA PAM 738-750
	FM 21-60
	FM 4-30.3 (FM 9-43-1)
	FM 9-43-2
	TM 9-243

# Recover a Mired Wheeled Vehicle 091-H8W-2007

**Conditions:** In a garrison or field environment with assistance and supervision, given applicable recovery vehicle with BII, general mechanic's tool kit, lubricants if required, applicable special tools/TMDE, required safety equipment, applicable forms and references, and repair parts, if needed.

**Standards:** recover an mired wheeled vehicle and tow to a predetermined location using the boom and tow bar without causing damage to the equipment or injury to personnel IAW applicable publications.

Performance Measures	GO	NO GO
Selected/used correct publications.		
2. Determined recovery methods.		
3. Recovered mired vehicle IAW TM and FM.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

### References

RequiredRelatedTM 9-2320-272-10AR 385-10TM 9-2320-279-10-1DA PAM 738-750TM 9-2320-279-10-2TC 43-35

# Recover an Overturned Vehicle 091-H8W-2008

**Conditions:** In a garrison or field environment with assistance and supervision, given applicable recovery vehicle with BII, general mechanic's tool kit, lubricants if required, applicable special tools/TMDE, required safety equipment, applicable forms and references, and repair parts, if needed.

**Standards:** recover an overturned vehicle and tow to a predetermined location using the boom and tow bar without causing damage to the equipment or injury to personnel IAW applicable publications.

Perf	formance Measures	GO	NO GO
1.	Selected/used applicable publications.		
2.	Performed PMCS.		
3.	Started engine.		
4.	Placed vehicle in motion.		
5.	Drove vehicle, maintaining proper engine speed when descending and ascending grades.		
6.	Drove vehicle in reverse.		
7.	Stopped vehicle.		
8.	Parked vehicle.		
9.	Stopped engine (normal and emergency procedures).		
10.	Completed TAMMS forms as required.		
11.	Followed prescribed safety procedures.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO- GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

# References

Required TM 9-2320-211-20P TM 9-2320-211-35 TM 9-2320-272-10 TM 9-2320-279-10-1 TM 9-2320-279-10-2 TM 9-2320-280-10 Related AR 385-10 DA PAM 738-750 TC 43-35

# Tow a Wheel Vehicle Using a Retrieval System 091-H8W-2009

**Conditions:** In a garrison or field environment with assistance and supervision, given applicable recovery vehicle with BII, general mechanic's tool kit, lubricants if required, applicable special tools/TMDE, required safety equipment, applicable forms and references, and repair parts, if needed.

**Standards:** Tow a disabled wheeled vehicle to a predetermined location using the retrieval system without causing damage to the equipment or injury to personnel IAW applicable publications.

Performance Measures	GO	NO GO
Positioned recovery vehicle.		
2. Selected proper vehicle hookup devices.		
3. Connected hookup devices to disabled vehicle.		
4. Connected retrieval system to disabled vehicle.		
5. Towed disabled vehicle.		
6. Disconnected retrieval system.		
7. Disconnected hookup devices to disabled vehicle.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

# References

Required
DA PAM 738-750
TM 9-2320-270-10
TM 9-2320-272-10
TM 9-2320-279-10-1
TM 9-2320-279-10-2

Related AR 385-10

# Tow a Wheel Vehicle Using the Boom and Tow Bar 091-H8W-2010

**Conditions:** In a garrison or field environment with assistance and supervision, given applicable recovery vehicle with BII, general mechanic's tool kit, lubricants if required, applicable special tools/TMDE, required safety equipment, applicable forms and references, and repair parts, if needed.

**Standards:** Tow a disabled vehicle to a predetermined location using the boom and tow bar without causing damage to the equipment or injury to personnel IAW applicable publications.

Perf	formance Measures	<u>GO</u>	NO GO
1.	Selected/used applicable publications.		
2.	Followed prescribed safety procedures.		
3.	Positioned recovery vehicle.		
4.	Prepared vehicle for towing.		
5.	Prepared recovery vehicle for towing operation.		
6.	Attached towing bar to disabled vehicle.		
7.	Operated boom.		
8.	Towed disabled vehicle.		
9.	Disconnected towed vehicle.		
10.	Secured recovery equipment.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

#### References

Required FM 9-43-2 TM 9-2320-260-10 TM 9-2320-272-10 TM 9-2320-279-10-1 TM 9-2320-279-10-2 **Related** AR 385-10 DA PAM 738-750

# Perform Self Recovery On A Wheeled Vehicle 091-H8W-2011

**Conditions:** Given a wheel vehicle requiring self/ field expedient recovery, BII, general mechanic's tool kit and applicable references to perform self recovery on a wheel vehicle.

**Standards:** Perform self recovery on a wheeled vehicle.

Performance Measures	<u>GO</u>	NO GO
Selected/used correct publications.		
2. Performed expedient recovery using applicable references.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

# References

**Required** TM 9-2320-260-10 TM 9-2320-272-10 Related AR 385-10 DA PAM 738-750 TC 43-35

# Perform Field Expedient Recovery on a Wheeled Vehicle 091-H8W-2012

**Conditions:** Given a wheel vehicle requiring field expedient recovery, Bll, general mechanic's tool kit and applicable references to perform self recovery on a wheel vehicle,

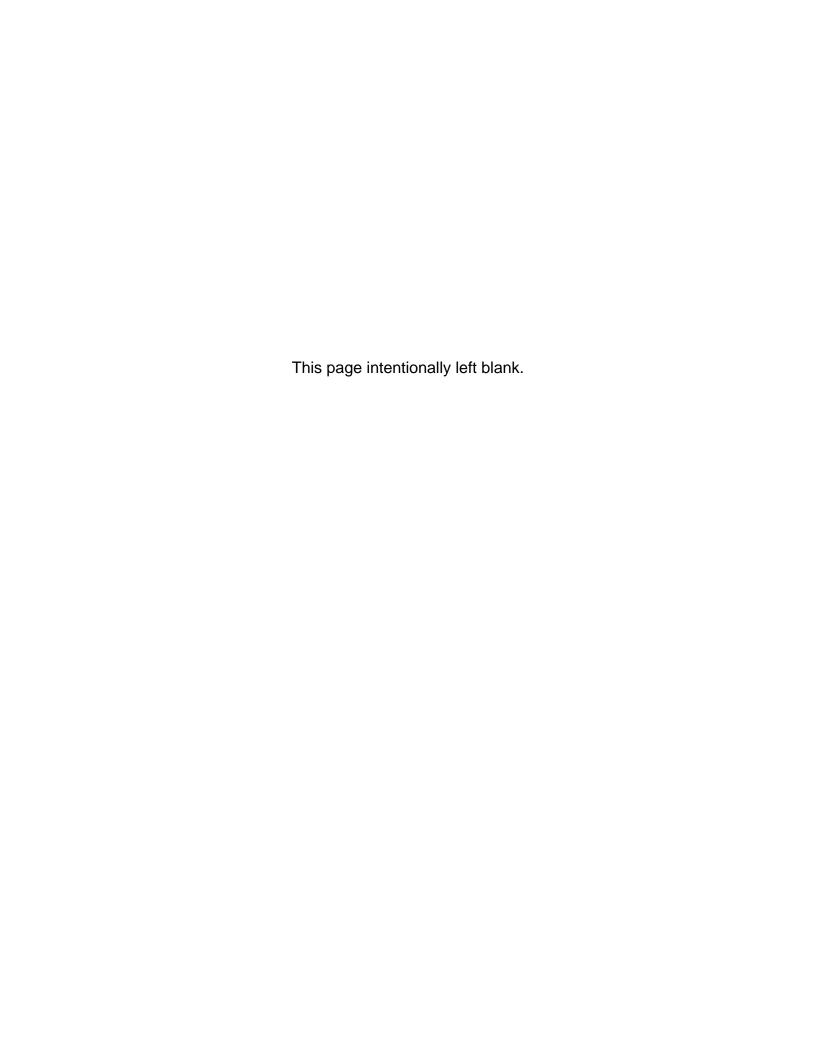
Standards: Perform Field Expedient Recovery on a Wheeled Vehicle

Performance Measures	GO	NO GO
Selected/used applicable publications.		
2. Determined method of field expedient recovery.		
3. Prepared vehicle for field expedient recovery as required.		
4. Performed vehicle field expedient recovery.		
5. Secured recovery equipment.		
6. Followed prescribed safety procedures.		

**Evaluation Guidance:** Score the soldier GO if all steps were passed. Score the soldier NO-GO if any step was failed. If the soldier fails any step, show what was done wrong and how to do it correctly.

# References

Required FM 9-43-2 TC 43-35 TM 9-2320-279-10-1 TM 9-2320-279-10-2 **Related** AR 385-10 DA PAM 738-750



### **APPENDIX A**

# HANDS-ON EVALUATION (DA FORM 5164-R) INSTRUCTIONS (Excerpted from STP 21-24-SMCT, Appendix C)

DA Form 5164-R (Hands-on Evaluation) allows the trainer to keep a record of the performance measures a soldier passes or fails on each task.

### Before evaluation:

- 1. Obtain a blank copy of DA Form 5164-R, which you may locally reproduce on 8 ½ x 11 paper.
- 2. Enter the task title and 10-digit number from the STP task summary.
- 3. In Column a, enter the performance measure numbers from the task summary.
- 4. In Column b, enter the performance measure corresponding to the number in Column a (you may abbreviate this information if necessary).
- 5. Locally reproduce the partially completed form when evaluating more than one soldier on the task or when evaluating the same soldier more than once.

# **During evaluation:**

- 1. Enter the date just before evaluating the soldier's task performance.
- 2. Enter the evaluator's name, the soldier's name, and the unit.
- 3. For each performance measure in Column b, enter a check in Column c (PASS) or Column d (FAIL), as appropriate.
- 4. Compare the number of performance measures the soldier passes (and, if applicable, which ones) against the task standards specified in the task summary. If the standards are met or exceeded, check the GO block under STATUS; otherwise, check the NO-GO block.

For use	HANDS-ON EVALUATION e of this form, see AR 350-57; the proponent agency is ODCSOPS	DATE	
	TASK TITLE	TASK NUMBER	
ITEM	PERFORMANCE STEP TITLE		ORE
a	b	(Check One)	
		PASS	FAIL
		С	d
		□Р	□F
		□P	□F
		□Р	□F
		□Р	□F
		□P	□F
		□P	□F
EVALUATOR'S NAM	ЛE	UNIT	
SOLDIER'S NAME		STATUS □ GO	□ NO GO

DA FORM 5164-R, SEP 85 EDITION OF DEC 82 IS OBSOLETE

USAPPC V2.00

### **APPENDIX B**

# FIELD EXPEDIENT SQUAD BOOK (DA FORM 5165-R) INSTRUCTIONS

DA Form 5165-R (Field Expedient Squad Book) allows the trainer to keep a record of task proficiency for a group of soldiers.

### Before evaluation:

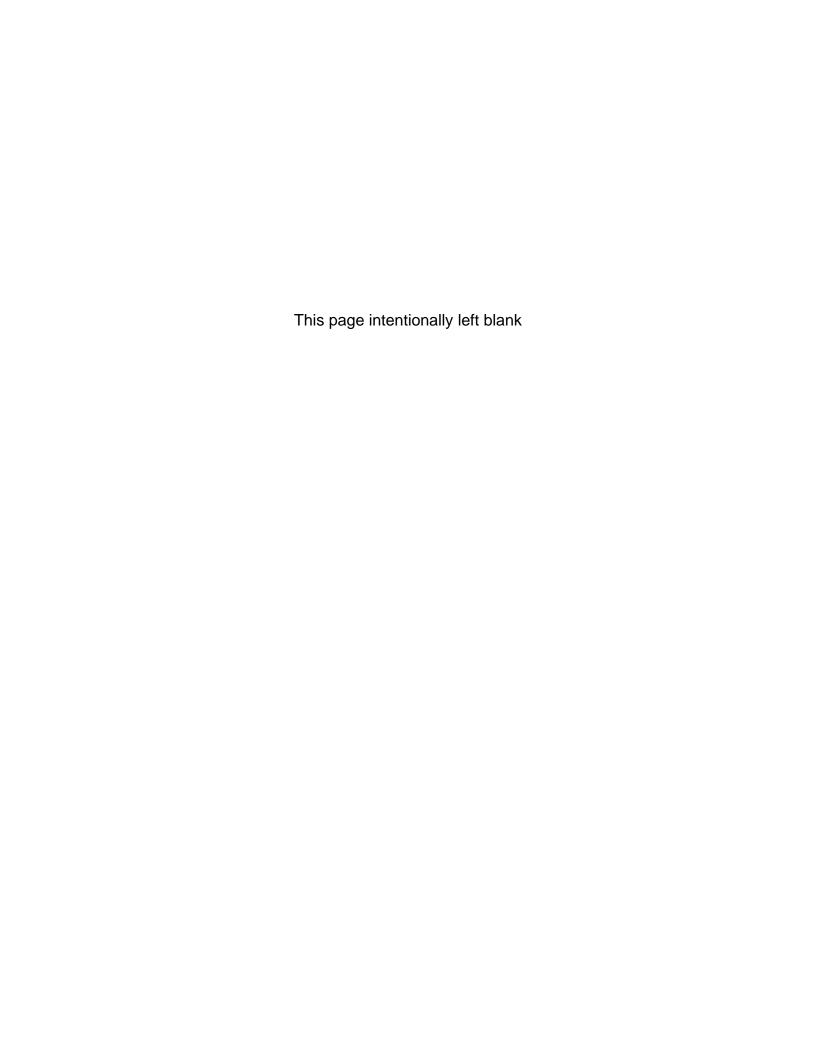
- 1. Obtain a blank copy of DA Form 5165-R, which you may locally reproduce on 8 ½ x 11 paper.
- 2. Locally reproduce the partially completed form if you are evaluating more than nine soldiers.

### **During evaluation:**

- 1. Enter the names of the soldiers you are evaluating, one name per column, at the top of the form.
- 2. Under STATUS, record (in pencil) the date in the GO block if the soldier demonstrated task proficiency to soldier's manual standards. Keep this information current by always recording the most recent date on which the soldier demonstrated task proficiency. Record the date in the NO-GO block if the soldier failed to demonstrate task proficiency to soldier's manual standards. Soldiers who failed to perform the task should be retrained and reevaluated until they can meet the standards. When the standards are met, enter the date in the appropriate GO block and erase the previous entry from the NO-GO block.

#### After evaluation:

- 1. Read down each column (GO/NO-GO) to determine the training status of an individual. This will give you a guick indication of which tasks a soldier needs training on.
- 2. Read across the rows for each task to determine the training status of all soldiers. You can readily see which tasks to focus training on.
- 3. Line through the STATUS column of any soldier who leaves the unit.



### **GLOSSARY**

Section I Abbreviations

**AN** annually

AOAP Army Oil Analysis Program

ARTEP Army training and evaluation program

BII basic issue items

**BM** bimonthly (once every two months)

BNC Basic NCO Course (BNCOC)

CTIS central tire inflation system

CTT (common task test)

A hands-on test used to evaluate the soldier's proficiency on common

tasks.

**EES** Enlisted Evaluation System

**FM** frequency modulated

**HEMTT** Heavy Expanded Mobility Tactical Truck

**IET** Initial Entry Training

IETM Interactive Electronic Technical Manual

MHE Materials Handling Equipment

**MO** monthly

MOS military occupational specialty

MOSC military occupational specialty code

NCO noncommissioned officer

NCO-ER noncommissioned officer evaluation report

NCOES NCO Education System

**PCS** permanent change of station

**PMCS** preventive maintenance checks and services

**PSI** pounds per square inch

**QT** quarterly

RC Reserve Component

SL skill level

SM soldier's manual

**SMCT** soldier's manual of common tasks

**SOJE** supervised on-the-job experience

**SPORT** soldier's portable on-system repair tool

**STP** soldier training publication

**TAMMS** The Army Maintenance Management System

**TMDE** test measurement and diagnostic equipment

WT written test

### **Terms**

#### Condition

Task condition--The task condition describes the field conditions under which the task will be performed. The condition expands on the information in the task title by identifying when, where, and why the soldier performs the task and what materials, personnel, and equipment the soldier must have to perform the task. Learning objective condition--The learning objective condition describes the training situation or environment under which the student must perform the learning action statement. It includes any pertinent influence on learning objective performance, including identification of materials, facilities, and equipment the student must have to perform the objective.

#### **Critical task**

See "task," critical collective task," and "critical individual task."

#### **Duty Position**

Duty positions are determined by military occupational specialties (MOSs), which are subdivided into five major skill levels (SLs). These SLs are further subdivided into related individual tasks which identify a soldier's SL or job.

# **Duty Position Task**

A task identified with and related to a particular position at a given SL within a specified MOS or area of concentration (AOC).

# GO/NO-GO

This is a pass/fail evaluation whereby the soldier (student) cannot be partially correct. Either he meets the standard or he does not meet the standard.

#### Jobs

The tasks performed by a single worker constitute his job. If identical tasks are performed by several individuals, they all hold the same job. Job is the same as duty position. An MOS is made up of skill levels. Skill levels are made up of jobs, also called duty positions.

#### Knowledge

Information or fact required to perform a skill or supported task.

### Military Occupational Specialty (MOS)

A group of duty positions so closely related by occupation or function that an optimal degree of interchangeability among persons so classified exists at any given SL.

#### Performance measures

The actions that can be objectively observed and measured to determine if a task performer has performed the task to the prescribed standard. These measures are derived from the task performance steps during task analysis. See "Task performance specifications."

#### Skills

The ability to perform a job related activity which contributes to the effective performance of a task.

#### Standard

A statement which establishes a criteria for how well a task or learning objective must be performed. The standard specifies how well, completely, or accurately a process must be performed or product produced. The task standard reflects task performance requirements on the job. The learning objective standard reflects the standard that must be achieved in the formal learning environment.

### Supervision

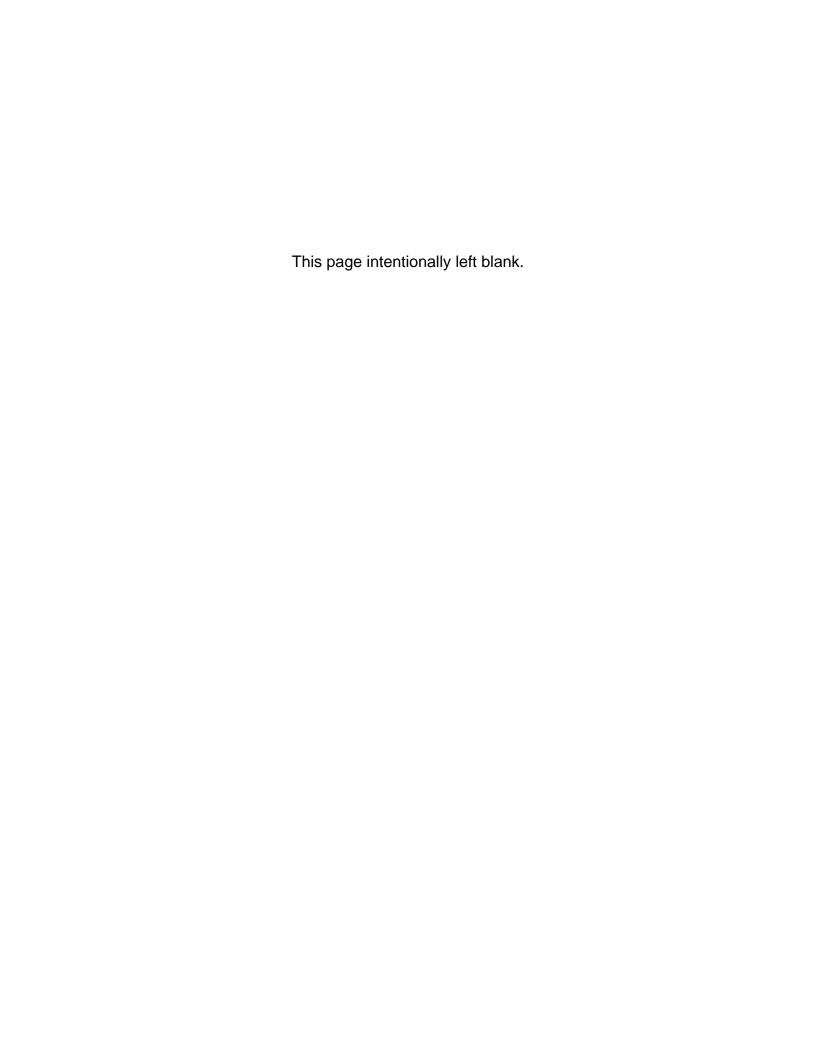
The action or process whereby subordinate personnel are influenced or directed by being spot-checked, observed at key points, or constantly monitored in order to perform a task satisfactorily.

#### Task

A clearly defined and measurable activity accomplished by individuals and organizations. It is the lowest behavioral level in a job or unit that is performed for its own sake. It must be specific; usually has a definite beginning and ending; may support or be supported by other tasks; has only one action and, therefore, is described using only one verb; generally is performed in a relatively short time (however, there may be no time limit or there may be a specific time limit); and it must be observable and measurable. The task title must contain an action verb and object and may contain a qualifier. Types: (subsequent entries)

#### Task summary

A listing in the soldiers' training publications of the conditions, standards, and performance measures, references, and proponent for each individual critical task. Information is extracted from the individual critical task analysis. See "Task performance specifications." Reference-dependent task summary--A summary written for those tasks which require the trained soldier to refer to one or more publications while performing all or part of a task in wartime conditions. Reference-independent task summary--A summary written for those tasks which require the trained soldier to perform the task in wartime conditions from memory, without reference to any publications.



### **REFERENCES**

### **Required Publications**

Required publications are sources that users must read in order to understand or to comply with this publication.

**Army Regulations** 

AR 750-43 Army Test, Measurement and Diagnostic Equipment Program (This Item

Is Included on EM 0001) 28 November 1997

**Department of Army Forms** 

**DA FORM 2404** Equipment Inspection And Maintenance Worksheet (This Item is

Included on EM 0001) 1 April 1979

**Department of Army Pamphlets** 

DA PAM 738-750 Functional Users Manual for The Army Maintenance Management

System (TAMMS) (This Item is Included on EM 0001) 1 August 1994

**Field Manuals** 

FM 21-26 Map Reading and Land Navigation 7 May 1993

FM 21-305 Manual for the Wheeled Vehicle Driver [AFMAN 24-306] 27 August 1993 FM 21-31

Topographic Symbols (Reprinted w/ Basic Incl. C1) (This item is included

on EM 0028) 19 June 1961

FM 24-35 (O) Signal Operation Instructions "The SOI" 26 October 1990

FM 25-2 **Unit Training Management** 

FM 25-3 Training in Units

FM 5-125 Rigging Techniques, Procedures, and Applications (This Item is Included

on EM 0028) 3 October 1995

FM 9-43-2 Recovery and Battlefield Damage Assessment and Repair (FMFRP 4-34;

TO 36-1-181) 3 October 1995

**Lubrication Orders** 

LO 10-3930-242-12 Truck, Lift, DED, Rough Terrain, 6,000 lb. Capacity

Truck, Lift, Fork; Diesel Engine, Pneumatic Tired Wheels, Rough Terrain; LO 10-3930-243-12

10,000 Lb. Capacity, 24-Inch Load Center (Pettibone-Mulliken Model RTL10, Army Model MHE-199) (NSN 3930-00-903-0899) And (Model RTL10-1, Army Model MHE-215)(3930-00-465 22 February 1994

Truck, Lift, Fork, Electric, Solid Rubber Tires, 4,000 lb. Capacity, 144 in. LO 10-3930-252-12

Lift (Clark Model 337450, Army Model MHE-185) (24X Microfiche) 16

October 1963

LO 10-3930-253-12 Truck, Lift, Fork, Electric, Solid Rubber Tires, 4,000Lb.s Capacity, 144 In

Lift (Baker Model FTD-040, Army Model MHE-186) (24x Microfiche) 4

October 1963

Truck, Lift, Fork, Electric, Solid Rubber Tires, 2,000 Lb. Capacity, 100 In. LO 10-3930-255-20

Lift And 130 In. Lift (Baker Model Ftd-020-EE, Army Model MHE 197)

(24x Microfiche) 5 April 1965

LO 10-3930-257-20 Truck, Lift, Fork, Electric, Solid Rubber Tires, 4,000 lb. Capacity, 100 ln.

Lift, 130 In. Lift and 144 In Lift (Baker Model FTD-040-EE, Army Model

MHE 196) 9 April 1965

LO 10-3930-606-12 Truck, Lift, Fork; Power Shift, GED; 6,000 Lb. Capacity) (Allis-Chalmers

Model F60-24ps, Army Model MHE-205) (NSN 3930-00-935-7856) 100-

	Inch Lift; (3930-00-935-7855) 128-InchLift And (3930-00-935-7857) 168-Inch Lift 1 May 1984
LO 10-3930-609-12	Truck, Lift, Fork, Electric, Solid Rubber Tires, 2,000 lb. Capacity, 144-Inch Lift (Baker Model FTD-020-EE-SS, Army Model MHE-204) (NSN 3930-00-935-7864) (This Item is Included on EM 0055) 23 March 1984
LO 10-3930-611-12	Truck, Lift, Fork, Electric, Solid Rubber Tires, 6,000 lb. Capacity, 180-Inch., Lift (Drexel Dynamics Model FL-60-EE-5600, Army Model MHE-206) 26 January 1970
LO 10-3930-620-12	Truck, Lift, Fork, Electric, Solid Rubber Tires, 6,000 lb. Capacity (Allis Chalmers Model FE-60-EE, Army Model MHE-214) (NSN 3930-00-476-8769) 17 July 1984
LO 10-3930-621-12	Truck, Lift, Fork, GED, Solid Rubber Tired Wheels, 4,000 lb. Capacity, 180- Inch Lift (Allis Chalmers Model F40-24PS, Army Model MHE-209) (NSN 3930-00-459-5948) and 100 Inch Lift (Model F40 -24PS100 (This Item is Included on EM 0055) 10 February 1984
LO 10-3930-623-12	Truck, Lift, Fork, 4,000 lb. Capacity
LO 10-3930-624-12	Truck, Lift, Fork, Power Shift, GED; 6,000 lb. Capacity, SRT 180- Inch Lift (Allis Chalmers Model F60-24ps-180, Army Model MHE-212) (NSN 3930-00-489-0263) (This Item is Included on EM 0055) 12 March 1984
LO 10-3930-625-12	Truck, Lift, Fork; Electric Solid Rubber Tires; 4,000 lb. Capacity, 100 Inch Lift (Drexel Dynamics Model FL-40-EE-6550, Army Model MHE-218) (NSN 3930-00-403-5661) and 180 Inch Lift (Model FL-40-EE-6250) (3930-00-403-5662) 28 August 1984
LO 10-3930-628-12	Truck, Lift, Fork, EMD, Solid Rubber Tired Wheels, 2,000 lb. Capacity, 144- Inch Lift (Allis Chalmers Model FE20-24EE, Army Model MHE-219) (NSN 3930-00-151-4432) (This Item is Included on EM 0055) 1 August 1984
LO 10-3930-631-12	Truck, Lift, Fork, 4,000 lb. Capacity, 144 and 180 lnch Lift (Allis Chalmers Models ACE40A33144 and ACE40AEE180, Army Model MHE-227) (NSN 3930-00-327-1603) 144 lnch and (3930-00-327-1600) (This Item is Included on EM 0055) 28 February 1984
LO 10-3930-634-12	Truck, Lift, Fork: Diesel Engine, Pneumatic Tired Wheels; 6,000 lb. Capacity, 24 Inch Load Center (Anthony Model MLT 6-2, Army Model MHE-230) (NSN 3930-00-327-1575) 15 December 1983
LO 10-3930-638-12	Truck, Fork Lift, DED, Pneumatic Tire, Articulated Frame Steer, 4,000 lb. Capacity, Rough Terrain, Army Model MHE 237 (J.I. Case Model M4K) (NSN 3930-01-076-4237) (This Item is Included on EM 0055) 25 March 1991
LO 10-3930-641-12	Truck, Container Handler: Rough Terrain, 50,000 lb. Capacity, DED, (NSN 3930-01-082-3758) With Top-handlers 25 March 1991
LO 9-2320-270-12	Truck, Tractor, Commercial Heavy Equipment Transporter (C-HET), 85,000 GVWR, 8X6, M911 (NSN 2320-01-025-3733) (This Item is Included on EM 0042) 10 November 1995
LO 9-2320-273-12	Truck Tractor, Line Haul, 50,000 GVWR, 6x4, M915 (NSN 2320-01-028-4395); Truck Tractor, Light Equipment Transporter LET); 56,000 GVWR, 6x6 W/W, M916 (2320-01-028-4396); Truck Tractor, Medium Equipment Transporter (MET); 75,000 GVWR 14 January 1983
LO 9-2320-279-12	M977 Series, 8x8 Heavy Expanded Mobility Tactical Trucks (HEMTT) Truck, with Winch, M977 (NSN 2320-01-097-0260), Truck, Cargo, without Winch M977 (2320-01-099-6426), Truck Tank, Fuel with Winch M978, (This item is included on EM 0030) 15 December 1998

### **Other Product Types**

Applicable equipment publications

SC 5180-95-N26 Set, Kits, and Outfits Tool Kit for General Mechanic's: Automotive

(GMTK) (This Item is Included on EM 0074) 1 September 1999

### **Soldier Training Publications**

STP 21-1-SMCT Soldier's Manual Of Common Tasks Skill Level 1 1 October 1994
STP 21-24-SMCT Soldier's Manual Of Common Tasks (SMCT) Skill Level 2-4 1 October

1992

#### **Technical Manuals**

TM 10-3930-243-12

TM 10-3930-215-20
Organizational Maintenance Manual: Truck, Lift, Fork, Gasoline,
Pneumatic-Tired Wheels, 6000 Lb. Capacity (Minneapolis-Moline Model
MY60RS, Army Model MHE-171) (NSN 3930-00-724-3569),
(Minneapolis-Moline Model MY60MCNRS) 15 February 1962

TM 10-3930-242-12
Operator And Organizational Maintenance Manual For Truck, Lift, Fork,
Diesel Engine, Pneumatic Tired Wheels, Rough Terrain; 6,000 Lb.
Capacity, 24-Inch Load Center (Anthony Model MLT-6) 31 July 1980

Truck, Lift, Fork, Diesel Engine, Pneumatic-Tired Wheels: Rough Terrain:

10,000 lb. Capacity 3 June 1971

TM 10-3930-252-12 Truck, Lift, Fork, Electric, Solid Rubber Tires: 4,000 lb. Capacity, Solid

Rubber Tires 27 December 1963

TM 10-3930-253-12 Operator's and Organizational Maintenance Manual for Truck, Lift, Fork, Electric; 4,000 Lb. Capacity, Solid Rubber Tires (Baker Model FTD-040,

Army Model MHE-186) (NSN 3930-064-5871) (Reprinted W/Basic Inc.)

2 January 1964

TM 10-3930-255-10 Operator's Manual For Truck, Light, Fork; Electric, Solid Rubber Tires;

2,000 Lb. Capacity (Army Model MHE-197, Baker Model FTD-020-EE) (FSN 3930-724-4058) 100-Inch Lift and (3930-965-0075) 130-Inch Lift

(Reprinted W/Basic Incl. C2) 15 February 1965

TM 10-3930-255-20 Truck, Lift, Fork, Electric, Solid Rubber Tires; 2,000-lb Capacity, 100-Inch

Lift and 130-Inch Lift 22 April 1965

TM 10-3930-256-10 Operator's Manual For Truck, Lift, Fork: Electric, Solid Rubber Tires;

6,000 Lb. Capacity (Baker Model FTD-060-EE, Army Model MHE-108) (FSN 3930-724-4057) 100-Inch Lift and (3930-724-4059) 172-Inch Lift

16 February 1965

TM 10-3930-256-20 Organizational Maintenance Manual for Truck, Lift, Fork, Electric, Solid

Rubber Tires; 6,000 Lb. Capacity (Army Model MHE-198, Baker Model FTD-060-EE) (NSN 3930-00-724-4057) (130-Inch Lift) 4 May 1965

TM 10-3930-257-10 Operator's Manual For Truck, Lift, Fork: Electric, Solid Rubber Tires;

4,000 Lb. Capacity (Baker Model FTD-040-EE, Army Model MHE-196) (FSN 3930-709-6342) (100-Inch Lift), (3930-709-6341) (130-Inch Lift) 16

February 1965

TM 10-3930-257-20 Organizational Maintenance Manual: Truck, Lift, Fork; Electric, Solid

Rubber Tires; 4,000 Lb. Capacity (Baker Model FTD-040-EE, Army Model MHE-196) (NSN 3930-00-709-6342) (100-Inch Lift), (3930-00-709-6342)

6341) 23 April 1965

TM 10-3930-609-12 Operator's And Organizational Maintenance Manual: Truck, Fork Lift,

Electric, Solid Rubber Tires; 2,000 Lb. Capacity, 144-Inch Lift (Baker Model Ftd-020-EE-SS, Army Model Mhe-204) (NSN 3930-00-935-7864)

21 May 1969

TM 10-3930-611-12	Operator's and Organizational Maintenance Manual: Truck, Lift, Fork; Electric, Solid Rubber Tires; 4,000 Lb. Capacity, 144-Inch Lift (Drexel Dynamics Model FL-40-EE-5600M, Army Model MHE-206) 17 February 1970
TM 10-3930-615-15	Operator's, Organizational, Direct Support, General Support, and Depot Maintenance Manual For Truck, Fork, Lift; Electric, Solid Rubber Maintenance Manual For Truck, Fork Lift; Electric 3 February 1970
TM 10-3930-620-12	Operator's and Organizational Maintenance Manual: Truck, Lift, Fork; Electric, Solid Rubber Tired Wheels; 6,000 Lb. Capacity, 180-Inch Lift (Allis-Chalmers Model FE-60-EE, Army Model MHE-214) 3 June 1971
TM 10-3930-621-12	Truck, Lift, Fork, GED, Solid Rubber Tired Wheels; 4,000-lb Capacity, 180-Inch Lift and 100-Inch Lift 5 August 1970
TM 10-3930-623-12	Truck, Fork Lift; 4,000 Lb. Capacity, 144-Inch Lift, Gasoline Engine Driven (Baker Model FJF-040, Army Model MHE-211) (FSN 3930-935-7963) 17 March 1971
TM 10-3930-624-12	Operator And Organizational Maintenance Manual For Truck, Lift, Fork: Power Shift, G.E.D.; 6,000 Lb. Capacity, SRT, 180-Inch Lift (Allis-Chalmers Model F60-24PS-180; Army Model MHE-212) 2 March 1971
TM 10-3930-625-12	Operator and Organizational Maintenance Manual For Truck, Lift, Fork, Electric, Solid Rubber Tires, Army Model MHE 218, 4,000 Lb. Capacity, 100-Inch Lift (Drexel Dynamics Model (FL-40-EE-6550) 21 April 1971
TM 10-3930-628-12	Operator And Organizational Maintenance Manual for Truck, Lift, Fork, EMD, Solid Rubber Tired Wheels, 2000 Lb. Capacity, 144-Inch Lift, Army Model Mhe-219 (Allis-Chalmers Model FE20-24EE) 10 June 1971
TM 10-3930-631-12	Operator's and Organizational Maintenance Manual for Truck, Lift, Fork, EMD, Solid Rubber Tired Wheels, 4000 Lb Capacity 144 and 180 In Lift Army Model MHE 227 Allis Chalmers Models ACE40AEE144 10 February 1975
TM 10-3930-634-12	Operator and Organizational Manual for Truck, Lift, Fork, Diesel Engine, Pneumatic-Tired Wheels, Rough Terrain, 6,000-lb Capacity, 24-Inch Load Center (Anthony Model MLT 6-2, Model MHE-230) 28 January 1977
TM 10-3930-638-10	Operator's Manual for Truck, Forklift, DED, Pneumatic Tire, Articulated Frame Steer, 4,000-lb Capacity, Rough Terrain, Army Model MHE 237 30 May 1980
TM 10-3930-638-24&P	Organizational, Direct Support, And General Support Maintenance Manual Including Repair Parts and Special Tools List For Truck, Forklift, DED, Pneumatic Tire, Articulated Frame Steer, 4,000 Lb. Capacity 1 October 1980
TM 10-3930-639-14&P	Operator's, Organizational, Direct Support And General Support Maintenance Manual Including Repair Parts Information And Supplemental Operating, Maintenance And Repair Parts Instructions For Fork Lift 1 May 1981
TM 10-3930-640-14&P	Operator's, Organizational, Direct Support And General Support Maintenance Manual Including Repair Parts Information And Supplemental Maintenance Instructions For Truck, Fork Lift, Gasoline Engine Driven 15 June 1981
TM 10-3930-641-10	Operator's Manual For Truck, Container Handler: Rough Terrain; 50,000 Lb. Capacity DED, Pt (NSN 3930-01-082-3758) With Top-handler(S) (Reprinted W/Basic Incl. C1) (This Item Is Included On EM 0055) 15 May 1981

TM 10-3930-641-20	Organizational Maintenance Manual For Truck, Container Handler; Rough Terrain; 50,000 Lb. Capacity, DED, Pt With Top Handlers (NSN 3930-01-082-3758) (Reprinted W/Basic Incl. C1) 26 June 1981
TM 10-3930-642-14&P	Operator's, Organizational, Direct Support and General Support Maintenance Manual Including Repair Parts Information And Supplemental Operating Maintenance and Repair Parts Instructions 11 May 1981
TM 10-3930-649-14&P	Operator's, Organizational, Direct Support and General Support Maintenance Manual for Truck, Fork Lift, Electrical (NSN 3930-01-080- 3246) 14 December 1983
TM 10-3930-651-14&P	Operator's, Organizational, Direct Support And General Support Maintenance Manual Including Repair Parts and Special Tools List For Truck, Fork, Lift, SRT: EMD (Allis-Chalmers Model) 28 May 1985
TM 10-3930-652-14&P	Operator's, Organizational, Direct Support And General Support Maintenance Manual Including Repair Parts Information for Truck, Forklift, Electric; Front/Side-loader, SRT; 4,000 Lb. Capacity 2 April 1984
TM 10-3930-657-14&P	Unit, DS and GS Maintenance. Repair Parts and Special Tools List (Including Depot Maintenance. Repair Parts Lists And Special Tool Lists) for Truck, Fork Lift, Clean Burn, Diesel Engine Driven, 4000 LB. Capacity, 144 Inch Lift, Pneumatic Tire, MHE 265 8 January 1988
TM 10-3930-658-14&P	Operator's, Organizational, Direct Support and General Support Maintenance Manual Including (Repair Parts and Special Tools List) Truck, Forklift, Clean Burn, Diesel Engine Driven, 6000 Lb. 8 January 1988
TM 10-3930-660-10	Operators Maintenance Manual for Truck, Forklift, 6000 lb., Variable Reach, Rough Terrain, (NSN 3930-01-158-0849) 30 March 1993
TM 10-3930-660-20	Unit Maintenance Manual for Truck, Forklift, 6000 lb., Variable Reach, Rough Terrain, (NSN 3930-01-158-0849) (This Item is Included on EM 0055) 25 March 1993
TM 11-5820-890-10-3	Operator for Radio Set AN/PRC 119 VRC 87-92
TM 11-6625-3052-14	Operator's, Unit, Direct Support and General Support Maintenance Manual for Digital Multimeter AN/PSM-45 (NSN 6625-01-139-2512) (Reprinted w/Basic Incl. C1-2) 10 January 1984
TM 11-6625-3199-14	Operators, Unit, Intermediate Direct Support, and General Support Maintenance Manual for Digital Multimeter AN/PSM-45A (NSN 6625-01- 265-6000) (This Item is Included on EM 0068) 15 December 1988
TM 9-1005-213-10	Operator's Manual for Machine Guns, Caliber .50; Browning, M2, Heavy Barrel Flexible, W/E (1005-00-322-9715) (EIC: 4AG) M48 Turret Type (1005-00-957-3893) (EIC: 4BB) Soft Mount (1005-LL-H11-5877) (Navy) Fixed Type Right Hand 6 August 1992
TM 9-2320-211-20P	Organization Parts and Special Tools List for Truck, 5-Ton, M51-Series
TM 9-2320-211-35	Direct Support, General Support, and Depot Maintenance Manual for Truck, 5-Ton, M51-Series
TM 9-2320-260-10	Operator's Manual for Truck, 5-Ton, 6X6, M809 Series (Diesel): Truck, Cargo: M813, M813A1 and M814; Truck Bolster, Logging; M815; Truck, Wrecker, Medium: M816, Truck Dump: M817; Truck Tractor: M818; Truck, Tractor, Wrecker: M819; 14 June 1985
TM 9-2320-270-10	Operator's Manual for Truck, Tractor, Commercial Heavy Equipment Transporter (C-HET), 85,000 GVWR, 8x6, M911 (NSN 2320-01-025- 3733) (Reprinted W/Basic Incl. C1-7) 2 December 1983
TM 9-2320-270-20-1	Organizational Maintenance for Truck, Tractor, Commercial Heavy Equipment Transporter (C-HET); 85,000 GVWR, 8x6, M911 (NSN 2320-01-025-3733) Volume 1 Of 3 (Reprinted W/Basic Incl. C1) 14 June 1986

TM 9-2320-272-10	Operator's Manual for Truck, 5-Ton,6X6, M939, M939A1, and M939A2 Series Truck (Diesel), Truck Cargo: 5-Ton, 6X6 Dropside, M923/A1/A2; M925/A1/A2; M927/A1/A2; M928/A1/A2; M929/A1/A2; (This Item is Included on EM 0039) 15 August 1996
TM 9-2320-273-10	Truck Tractor, Line Haul, 50,000 GVWR 6x4, M915 series
TM 9-2320-273-20	Organizational Maintenance Manual for Truck, Tractor, M900-Series
TM 9-2320-279-10-1	Operators Manual for M977 Series 8X8 Heavy Expanded, Mobility Tactical Trucks (HEMTT), Truck, Cargo, with Winch, M977 (NSN 2320-01-097-0260) Truck, Cargo, without Winch, M977 (2320-01-099-6426) Truck, Tank, Fuel With Winch, M978 21 November 1986
TM 9-2320-279-10-2	Operator's Manual for M977 Series, 8X8 Heavy Expanded Mobility Tactical Truck (HEMTT) Truck, Cargo, With Wench, M977, (2320-01-097-0260) Truck, Cargo, Without Wench, M977 (2320-01-099-6426) Truck, Tank, Fuel, With Winch, M978 15 June 1987
TM 9-2320-279-20-1	Maintenance Instructions for Organizational Maintenance M977 Series, 8X8 Heavy Expanded Mobility Tactical Trucks (HEMTT) Truck, Cargo, with Winch M977 (NSN 2320-01-097-0260) Truck, Cargo, without Winch M977 (2320-01-099-6426) Truck, Tank 7 April 1987
TM 9-2320-279-20-2	Volume 2 - Maintenance Instructions for Organizational Maintenance M977 Series, 8X8 Heavy Expanded Mobility Tactical Trucks (HEMTT) Truck Cargo, With Winch M977 (NSN 2320-01-097-0260) Truck, Cargo, Without Winch M977 (2320-01-099-6426) 7 April 1987
TM 9-2320-279-20-3	Maintenance Instructions for Organizational Maintenance 977 Series, 8X8 Heavy Expanded Mobility Tactical Trucks (HEMTT) Truck Cargo, With Winch M977 (NSN 2320-01-097-0260) Truck, Cargo, Without Winch M977 (2320-01-099-6426) 8 April 1987
TM 9-2320-279-24P-1	Direct Support and General Support Maintenance Repair Parts and Special Tools List for M977 Series, 8x8 Heavy Expanded Mobility Tactical Trucks (HEMTT), Truck Cargo, with Winch M977 (NSN 2320-01-097-0260) (EIC:B2G) Truck, Tank 15 December 1998
TM 9-2320-280-10	Operator's Manual for Truck, Utility: Cargo/Troop Carrier, 1 1/4-Ton, 4X4, M998 (EIC:BBD); M998A1 (EIC:BBN); Truck, Utility; Cargo/Troop Carrier; 1-1/4 Ton, 4X4, W/Winch; M1038, 1038A1; M1097 (This Item is Included on EM 0030 & EM 0034) 31 January 1996
TM 9-2320-283-10	Operator's Manual for Truck Tractor, Line Haul; 50,000 GVWR, 6x4, M915A1 (NSN 2320-01-125-2640) (Reprinted W/Basic Incl. C1-3) (This Item is Included on EM 0048) 27 June 1983
TM 9-2320-283-20-1	Organizational Maintenance for Truck Tractor, Line Haul, 50, 000 GVWR, 6x4, M915A1 (NSN 2320-01-125-2640) (Reprinted W/ Basic Incl. C1) (This Item is Included On EM 0048) 8 December 1983
TM 9-2320-283-20-2	Organizational Maintenance for Truck Tractor, Line Haul, 50, 000 GVWR, 6x4, M915A1 (NSN 2320-01-125-2640) (This Item is Included On EM 0048) 8 December 1983
TM 9-2320-283-20-3	Organizational Maintenance for Truck Tractor, Line Haul; 50, 000 GVWR, 6x4, M915A1 (NSN 2320-01-125-2640) (Reprinted W/ Basic Incl. C1) (This Item is Included On EM 0048) 8 December 1983
TM 9-2320-360-10	Operator's Manual for Truck, Tractor, M1070, 8X8, Heavy Equipment Transporter (HET) (NSN 2320-01-318-9902)(EIC:B5C) 31 March 1994
TM 9-2320-360-20-1	Unit Maintenance Manual for Truck, Tractor, M1070, 8X8, heavy Equipment Transporter (HET) (NSN 2320-01-318-9902)(EIC:B5C) 31 March 1994

TM 9-2320-360-20-2	Unit Maintenance Manual for Truck, Tractor, M1070, 8X8, heavy Equipment Transporter (HET) (NSN 2320-01-318-9902)(EIC:B5C) 31 March 1994
TM 9-2320-363-20-1	Unit Maintenance for Truck, Tractor, Line Haul 52,000 GVWR, 6X4, M915A2 (NSN 2320-01-272-5029) Truck Tractor, Light Equipment Transporter (LET) 68,000 GVWR, 6X6, w/Winch, M916A2 (2320-01-431-1163) Truck, Dump, Heavy, Chassis 68,000 GVWR, 11 June 1992
TM 9-2320-363-20-2	Unit Maintenance for Truck, Tractor, Line Haul 52,000 GVWR, 6X4, M915A2 (NSN 2320-01-272-5029) Truck Tractor, Light Equipment Transporter (LET) 68,000 GVWR, 6X6, w/Winch, M916A2 (2320-01-431-1163) Truck, Dump, Heavy, Chassis 68,000 GVWR, 12 June 1992
TM 9-2320-364-10	Operators Manual for Truck, Tractor, M1074 and M1075 Palletized Load System (PLS) (NSN 2320-01-304-2277) (2320-01-304-2278) 1 August 1999
TM 9-2320-364-20-1	Unit Maintenance Manual, Volume I for Palletized Load System M1074/M1075 (NSN 2320-01-304-2277)(2320-01-304-2278) (This item is included on EM 0052) 1 August 1999
TM 9-2320-364-20-2	Unit Maintenance Manual, Volume I I for Palletized Load System M1074/M1075 (NSN 2320-01-304-2277)(2320-01-304-2278) (This item is included on EM 0052) 4 August 1999
TM 9-2320-364-20-3	Unit Maintenance Manual, Volume III for Palletized Load System M1074/M1075 (NSN 2320-01-304-2277)(2320-01-304-2278) (This item is included on EM 0052) 1 August 1999
TM 9-2330-207-14	Operator's, Organizational, Direct Support and General Support Maintenance Manual for Semitrailer, Stake: 12-Ton, 4-Wheel, M127 (NSN 2330-00-797-9207), M127A1 (2330-00-048-7743), M127A1C 18 February 1983
TM 9-2330-207-24P	Unit, Direct Support, and General Support Maintenance Repair Parts and Special Tools List for Semitrailer, Stake: 12-Ton, 4-Wheel, M127 (NSN 2330-00-797-9207), M127A1 (2330-00-048-7743) 26 May 1993
TM 9-2330-208-15	Operator's, Organizational, Field And Depot Maintenance Manual for Semitrailer, Tank: Fuel Servicing; 5,000 Gallon, 12-Ton, 4-Wheel, M131A3C (FSN 2330-533-3380), M131 (2330-835-8565), M131A1 11 February 1960
TM 9-2330-208-24P	Organizational and Field Maintenance Repair Parts and Special Tools List for Semitrailer, Tank: Fuel Servicing; 5000 Gallon, 4-Wheel, M131A3C (2330-533-3380) Semitrailer, Tank: Gasoline 17 February 1961
TM 9-2330-211-14&P	Operator's, Unit, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools List) For Semitrailer, Low Bed: 25-Ton, 4-Wheel, M172A1 (NSN 2330-00-317-6448) 14 July 1991
TM 9-2330-294-14	Operator's, Organizational, Direct Support and General Support Maintenance Manual: Semitrailer, Low Bed, Heavy Equipment Transporter, 60-Ton, M747 (NSN 2330-00-089-7265) 5 May 1976
TM 9-2330-374-14&P	Operators, Organizational, Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists) for Semi-Trailer, Van: Supply, 12-Ton, 4-Wheel M129A3 (NSN 23
TM 9-2330-381-14	Operator's, Unit, Direct Support and General Support Maintenance Manual for Heavy Equipment Transporter Semitrailer, 70 Ton, M1000 (NSN 2330-01-303-8832) (EIC:CXU) [TM 09295A-14/1] (This Item is Included on EM 0049) 30 November 1994

TM 9-243 Use And Care of Hand Tools And Measuring Tools [M6290-AJ-MAN-010;

To 32-1-101; TM-10209-10/1] (Reprinted W/Basic InclC1-2) (This Item is

Included on EM 0178) 12 December 1983

TM 9-4910-571-12&P Operator's and Organizational Maintenance Manual Including Repair

Parts and Special Tools List for Simplified Test Equipment for Internal Combustion Engines (Reprinted W/Basic Incl. C1-2)(This Item is

Included on EM 0068) 25 March 1988

TM 9-6140-200-14 Operator's, Unit, Direct Support and General Support Maintenance

Manual for Lead-Acid Storage Batteries; 4HN, 24 Volt M11188/2-24V; 4HN, 24 Volt (WET) M11188/2-24V; 2HN, 12Volt (DRY) (This Item is

Included on M0178) 11 September 1998

TM 9-6625-2301-12 Operator and Organizational Maintenance Manual for Test Set,

Electronic Systems, AN/PSM-95 (This Item is Included on EM 0103) 15

**April 1998** 

TM 9-8000 Principles of Automotive Vehicles (Reprinted W/Basic Incl. C1) 25

October 1985

**Training Circulars** 

TC 43-35 Recovery Training 3 October 1995

TC 9-237 Operator's Circular Welding Theory and Application (This item is included

on EM 0028) 7 May 1993

#### **Related Publications**

Related publications are sources of additional information. They are not required in order to understand this publication.

**Army Regulations** 

AR 385-10 The Army Safety Program (This item is included on EM 0001) 23 May

1988

AR 750-1 Army Materiel Maintenance Policy and Retail Maintenance Operations

(This Item is Included on EM 0001) 1 August 1994

AR 750-43 Army Test, Measurement and Diagnostic Equipment Program (This Item

Is Included on EM 0001) 28 November 1997

**Department of Army Pamphlets** 

DA PAM 738-750 Functional Users Manual for The Army Maintenance Management

System (TAMMS) (This Item is Included on EM 0001) 1 August 1994

DA PAM 738-751 Functional Users Manual for the Army Maintenance Management

System-Aviation (TAMMS-A) (This Item is Included on EM 0001) 15

March 1999

**Field Manuals** 

FM 21-60 Visual Signals

FM 24-18 Tactical Single-Channel Radio Communications Techniques 30

September 1987

FM 4-30.3 (FM 9-43-1) Maintenance Operations and Procedures 1 September 2000

FM 9-43-2 Recovery and Battlefield Damage Assessment and Repair (FMFRP 4-34;

TO 36-1-181) 3 October 1995

Technical Manuals	
TM 11-5820-401-10-1	Operator's Manual for Radio Sets AN/VRC-12 (NSN 5820-00-223-7412), AN/VRC-43 (NSN 5820-00-223-7415), AN/VRC-44 (NSN 5820-00-223-7417), AN/VRC-45 (NSN 5820-00-223-7418), AN/VRC-45 (NSN 5820-00-223-7418), AN/VRC-46, -47, -48, and -49 15 January 1986
TM 11-5820-401-10-2	Operator's Manual for Radio Sets AN/VRC-12 (NSN 5820-00-223-7412), AN/VRC-43 (NSN 5820-00-223-7415), AN/VRC-44 (NSN 5820-00-223-7417), AN/VRC-45 (NSN 5820-00-223-7418), AN/VRC-46 (NSN 5820-00-223-7418), AN/VRC-46, -47, -48, and -49 23 November 1982
TM 11-5820-401-10-4	Operator's Quick Checks for Receiver-Transmitter, RT-246 ( )/VRC (NSN 5820-00-892-0623) and RT-524 ( )/ (5820-00-892-0622) (This item Included on EM 0062 & EM 0079) 16 October 1980
TM 11-5820-498-12	Operator's And Organizational Maintenance Manual: Radio Sets, An/Vrc-53 (NSN 5820-00-223-7467), AN/VRC-64 (5820-00-223-7475), AN/GRC-125 (5820-00-223-7411) and AN/GRC-160 (5820-00-223-7473) 31 May 1967
TM 11-5830-340-12	Operator's and Unit Organizational Maintenance Manual for Intercommunication Set AN/VIC-1 and Control, Intercommunication Set, C-10456/VRC (This Item is Included on EM 0063) 15 January 1986
TM 9-2320-279-10-1	Operators Manual for M977 Series 8X8 Heavy Expanded, Mobility Tactical Trucks (HEMTT), Truck, Cargo, with Winch, M977 (NSN 2320-01-097-0260) Truck, Cargo, without Winch, M977 (2320-01-099-6426) Truck, Tank, Fuel With Winch, M978 21 November 1986
TM 9-2320-279-10-2	Operator's Manual for M977 Series, 8X8 Heavy Expanded Mobility Tactical Truck (HEMTT) Truck, Cargo, With Wench, M977, (2320-01-097-0260) Truck, Cargo, Without Wench, M977 (2320-01-099-6426) Truck, Tank, Fuel, With Winch, M978 15 June 1987
TM 9-2320-279-20-1	Maintenance Instructions for Organizational Maintenance M977 Series, 8X8 Heavy Expanded Mobility Tactical Trucks (HEMTT) Truck, Cargo, with Winch M977 (NSN 2320-01-097-0260) Truck, Cargo, without Winch M977 (2320-01-099-6426) Truck, Tank 7 April 1987
TM 9-2320-279-20-2	Volume 2 - Maintenance Instructions for Organizational Maintenance M977 Series, 8X8 Heavy Expanded Mobility Tactical Trucks (HEMTT) Truck Cargo, With Winch M977 (NSN 2320-01-097-0260) Truck, Cargo, Without Winch M977 (2320-01-099-6426) 7 April 1987
TM 9-2320-360-10	Operator's Manual for Truck, Tractor, M1070, 8X8, Heavy Equipment Transporter (HET) (NSN 2320-01-318-9902)(EIC:B5C) 31 March 1994
TM 9-2320-360-20-1	Unit Maintenance Manual for Truck, Tractor, M1070, 8X8, heavy Equipment Transporter (HET) (NSN 2320-01-318-9902)(EIC:B5C) 31 March 1994
TM 9-2320-360-20-2	Unit Maintenance Manual for Truck, Tractor, M1070, 8X8, heavy Equipment Transporter (HET) (NSN 2320-01-318-9902)(EIC:B5C) 31 March 1994
TM 9-2320-363-20-1	Unit Maintenance for Truck, Tractor, Line Haul 52,000 GVWR, 6X4, M915A2 (NSN 2320-01-272-5029) Truck Tractor, Light Equipment Transporter (LET) 68,000 GVWR, 6X6, w/Winch, M916A2 (2320-01-431-1163) Truck, Dump, Heavy, Chassis 68,000 GVWR, 11 June 1992
TM 9-2320-363-20-2	Unit Maintenance for Truck, Tractor, Line Haul 52,000 GVWR, 6X4, M915A2 (NSN 2320-01-272-5029) Truck Tractor, Light Equipment Transporter (LET) 68,000 GVWR, 6X6, w/Winch, M916A2 (2320-01-431-1163) Truck, Dump, Heavy, Chassis 68,000 GVWR, 12 June 1992

TM 9-2330-381-14 Operator's, Unit, Direct Support and General Support Maintenance

Manual for Heavy Equipment Transporter Semitrailer, 70 Ton, M1000 (NSN 2330-01-303-8832) (EIC:CXU) [TM 09295A-14/1] (This Item is

Included on EM 0049) 30 November 1994

TM 9-243 Use And Care of Hand Tools And Measuring Tools [M6290-AJ-MAN-010;

To 32-1-101; TM-10209-10/1] (Reprinted W/Basic InclC1-2) (This Item is

Included on EM 0178) 12 December 1983

TM 9-8000 Principles of Automotive Vehicles (Reprinted W/Basic Incl. C1) 25

October 1985

**Training Circulars** 

TC 43-35 Recovery Training 3 October 1995

By Order of the Secretary of the Army:

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

Official:

JOEL B. HUDSON Administrative Assistant to the Secretary of the Army 012760

# **DISTRIBUTION:**

*Active Army, US Army Reserve, and Army National Guard:* Not to be distributed. To be published by electronic means only.

PIN: 055707-000