STP 9-52D13-SM-TG

Soldier's Manual
and
Trainer's Guide

Power-Generation Equipment Repairer
MOS 52D
Skill Levels 1, 2, and 3

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Preface

This Soldier Training Publication (STP) is intended for Soldiers holding Military Occupational Specialty (MOS) 52D, Skill Levels (SLs) 1, 2, and 3, 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 52D should have access to this publication. Trainers and firstline 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.

Tasks in this manual apply to the Active Army, the Army National Guard/Army National Guard of the United States, and the United States Army Reserve unless otherwise stated.

The proponent of this publication is United States Army Training and Doctrine Command (TRADOC). Submit comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to: Department of the Army, Training Directorate, Fix/Arm Division, ATTN: ATCL-TDF, 401 First Street, Fort Lee, VA 23801-1511.

Chapter 1

Introduction

1-1. General. This Soldier Training Publication (STP) identifies individual Military Occupational Specialty (MOS) training requirements for Soldiers holding MOS 52D. 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 52D 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.

a. 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.

b. 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 Program (ARTEP), FM 25-4 (How to Conduct Training Exercises), FM 25-5 (Training for Mobilization and War), FM 7-0 (Training the Force), and FM 7-1 (Battle Focused Training) to establish effective training plans and programs that integrate Soldier, leader, and collective tasks.

1-2. Task Summaries. 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 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 steps.** This section provides, in detail, what is required on how to perform the task.

- **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. Soldier's Responsibilities. 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. Another important resource for self-development is the Army Correspondence Course Program (ACCP). For enrollment information in this program, visit on line through the Army Institute for Professional Development (AIPD) website at http://www.atsc.army.mil/accp/aipdnew.asp.

1-5. Commander's Responsibilities. 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, train-up, and sustainment training programs. Commanders should use the MOS Training Plan when developing unit training plans.

1-6. Trainer's Responsibilities. 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.

a. 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. This STP helps the trainer do what trainers get paid to do, train. Developing effective training is explained in detail in FM 7-0 and FM 7-1.

b. 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.

c. 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 has passed or failed. The form, which may be locally reproduced, applies to all tasks in this STP. Trainers may have DA Form 5164-R overprinted 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.

d. 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. Training Support. 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.

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Chapter 2

Training Guide

2-1. General. The MOS Training Plan 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 MOS Training Plan should be used as a guide for conducting unit training and not a rigid standard. The MOS Training Plan 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 MOS Training Plan 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 MOS Training Plan. 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 MOS Training Plan.
- **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, and so on), the resident course where the task was taught. Figure 2-1 contains a list of training locations and their corresponding brevity codes.

ASI/SD	Additional Skill Identifier/Special Duty
AIT	Advanced Individual Training
BNCOC	Basic NCO Course
BTC	Basic Technical 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	- Biweekly
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 and Skill Level 2

1 GENERATOR TASKS
2 ENGINE TASKS
3 WELDING MACHINE TASKS
4 EMPLOYMENT OF MOBILE POWER AND DISTRIBUTION SYSTEMS
5 MAST AND ELECTRIC POWER PLANT MAINTENANCE (ASI C-9 ONLY)

Skill Level 3

6 COMMON LOGISTICS TASKS
7 TECHNICAL TASKS

2-3. Duty Position Training Requirements.

52D CAREER FIELD DUTY POSITIONS			
Duty Position	**Subject Area**	**Cross Train**	**Train-up/Merger**
Skill Level 1			
Power-Generation Equipment Repairer	1 – 5	NA	52D20/Power-Generation Equipment Repairer
Skill Level 2			
Power-Generation Equipment Repairer	1 - 5	NA	52D30/Senior Power-Generation Equipment Repairer 52D30/Technical Inspector
Skill Level 3			
Senior Power-Generation Equipment Repairer Technical Inspector	6 - 7	NA	52X40/Special Purpose Equipment Repairer

2-4. Critical Tasks List.

MOS TRAINING PLAN

CRITICAL TASKS

Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
Skill Level 1 and Skill Level 2				
Subject Area 1. GENERATOR TASKS				
091-52D-1181	Correct Malfunction of Main AC Generator Assembly on a Generator Set	AIT	AN	1/2
091-52D-1182	Correct Malfunction of Electrical Governor System on a Generator Set	AIT	AN	1/2
091-52D-1101	Correct Malfunction of Control Panel Components on a Generator Set	AIT	AN	1/2
091-52D-1111	Perform Preventive Maintenance Checks and Services on a Generator Set	AIT	AN	1/2
Subject Area 2. ENGINE TASKS				
091-52D-1183	Correct Malfunction of Battery Charging System on the Engine of a Generator Set	AIT	AN	1/2
091-52D-1184	Correct Malfunction of Components of the Lubrication System on a Diesel Engine of a Generator Set	AIT	AN	1/2
091-52D-1185	Correct Malfunction of the Fuel System on a Diesel Engine of a Generator Set	AIT	AN	1/2
091-52D-1186	Correct Malfunction of the Starting System on a Diesel Engine of a Generator Set	AIT	AN	1/2
Subject Area 3. WELDING MACHINE TASKS				
091-52D-1187	Correct Malfunction on the DC Circuitry of an Arc Welder	AIT	AN	1/2
Subject Area 4. EMPLOYMENT OF MOBILE POWER AND DISTRIBUTION SYSTEMS				
091-52D-1189	Perform Paralleling Procedures on Generator Sets	AIT	AN	1/2
091-52D-1188	Perform Procedures to Determine Generator Selection to Meet a Particular Power Demand	AIT	AN	1/2
Subject Area 5. MAST AND ELECTRIC POWER PLANT MAINTENANCE (ASI C-9 ONLY)				
091-ASIC9-1002	Diagnose and Correct Malfunction of a Defective Hydraulic Pneumatic Mast System	ASI/SD	AN	1/2
091-ASIC9-1003	Perform Preventive Maintenance Checks and Services on a Hydraulic-Pneumatic Mast	ASI/SD	AN	1/2
091-ASIC9-1004	Perform Preventive Maintenance Checks and Services on the Electrical Power Plant III	ASI/SD	AN	1/2
091-ASIC9-1005	Test Operate the Electrical Power Plant III	ASI/SD	AN	1/2
091-ASIC9-1006	Correct Malfunction on the Electrical System on the Electric Power Plant III	ASI/SD	AN	1/2
Skill Level 3				
Subject Area 6. COMMON LOGISTICS TASKS				
091-CLT-3001	Manage a Shop Safety Program	BNCOC	AN	3
091-CLT-3002	Maintain a Publications Library	BNCOC	AN	3

CRITICAL TASKS

Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
091-CLT-3003	Establish Maintenance Facilities	BNCOC	AN	3
091-CLT-3004	Assist in Preparing a Standing Operating Procedure	BNCOC	AN	3
091-CLT-3005	Manage Tool Control Procedures	BNCOC	AN	3
091-CLT-3006	Manage Key Control Procedures	BNCOC	AN	3
091-CLT-3008	Recon Terrain/Route	BNCOC	AN	3
091-CLT-3009	Supervise Maintenance Operations	BNCOC	AN	3
091-CLT-3010	Interpret Maintenance Operational Overlay	BNCOC	AN	3
091-CLT-3011	Deploy Maintenance Support Teams	BNCOC	AN	3
091-CLT-3012	Interpret a Standard Army Maintenance System (SAMS) Generated Maintenance Report	BNCOC	AN	3
091-CLT-3013	Manage the Unit Level Logistics System (ULLS)	BNCOC	AN	3
091-CLT-3014	Manage the Unit Army Oil Analysis Program (AOAP)	BNCOC	AN	3
091-CLT-3015	Deploy Company Maintenance Team/Recovery Support Team	BNCOC	AN	3
091-CLT-3016	Review the Army Materiel Status System (AMSS) Reports	BNCOC	AN	3
Subject Area 7. TECHNICAL TASKS				
091-52D-3126	Perform Diagnostic Procedures on a Load Bank	BNCOC	AN	3
091-52D-3101	Perform Diagnostic Procedures on the Electrical Control System of a Generator Set	BNCOC	AN	3
091-52D-3102	Perform Diagnostic Procedures on a Voltage Regulator of a Generator Set	BNCOC	AN	3
091-52D-3103	Perform Diagnostic Procedures on Fault Indicator Panel of a Generator Set	BNCOC	AN	3
091-52D-3104	Perform Diagnostic Procedures of Relay Assembly on a Generator Set	BNCOC	AN	3
091-52D-3105	Perform Diagnostic Procedures on a Governor Assembly of a Generator Set	BNCOC	AN	3
091-52D-3106	Perform Diagnostic Procedures on the Main Generator Assembly of a Generator Set	BNCOC	AN	3
091-52D-3107	Perform Diagnostic Procedures on a Battery Charging Alternator	BNCOC	AN	3
091-52D-3109	Perform Diagnostic Procedures on the Lubrication System	BNCOC	AN	3
091-52D-3112	Perform Diagnostic Procedures on Glow Plugs of a Diesel Engine	BNCOC	AN	3
091-52D-3114	Perform Diagnostic Procedures on a Starter Assembly	BNCOC	AN	3
091-52D-3118	Perform Diagnostic Procedures on the Fuel System of an Engine	BNCOC	AN	3
091-52D-3119	Perform Diagnostic Procedures on a Cooling System of a Diesel Engine	BNCOC	AN	3
091-52D-3120	Perform Diagnostic Procedures on the Electrical Control on a Welding Machine	BNCOC	AN	3
091-52D-3121	Perform Quality Control/Quality Assurance Inspection on a Generator Set	BNCOC	AN	3
091-52D-3122	Perform Quality Control/Quality Assurance Inspection on a Welding Machine	BNCOC	AN	3

CRITICAL TASKS

Task Number	Title	Training Location	Sust Tng Freq	Sust Tng SL
091-52D-3123	Perform Classification Inspection on a Generator Set	BNCOC	AN	3
091-52D-3124	Perform Classification Inspection on a Welding Machine	BNCOC	AN	3
091-52D-3127	Replace Cylinder Head	BNCOC	AN	3
091-52D-3128	Perform Diagnostic Procedures on the Output Rectifier Assembly on a Welding Machine	BNCOC	AN	3
091-52D-3129	Perform Diagnostic Procedures on the Range Switch Assembly on a Welding Machine	BNCOC	AN	3
091-52D-3130	Perform Diagnostic Procedures on the Reactor Assembly on a Welding Machine	BNCOC	AN	3

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Chapter 3

MOS/Skill Level Tasks

Skill Level 1

Subject Area 1: GENERATOR TASKS

Correct Malfunction of Main AC Generator Assembly on a Generator Set
091-52D-1181

Conditions: In a contemporary operational environment, given a generator set, maintenance request or equipment inspection worksheet describing equipment malfunctions, variac or external power supply, direct current (DC) power supply, general mechanic's tool kit, digital multimeter, hearing protection, applicable technical publications, and with supervision/assistance.

Standards: Correct malfunction of main generator assembly on a generator set in accordance with the applicable technical publications. When the task is completed, the generator set must be fully mission-capable.

Performance Steps

1. Select and use applicable publications.
2. Select and use applicable tools and test, measurement, and diagnostic equipment (TMDE).
3. Practice shop safety and maintenance discipline.
4. Inspect the main generator assembly on a generator set.
5. Test the main generator assembly.
6. Repair main generator assembly, as required.
7. Replace main generator assembly, as required.
8. Perform a final operational test to verify fault(s) have been corrected.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not

attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	GO	NO-GO
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools and TMDE.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Inspected the main generator assembly on a generator set.	____	____
5. Tested the main generator assembly.	____	____
6. Repaired main generator assembly, as required.	____	____
7. Replaced main generator assembly, as required.	____	____
8. Performed a final operational test to verify fault(s) have been corrected.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required
DA FORM 2404
DA FORM 5988-E
TM 5-6115-271-14
TM 5-6115-423-15
TM 5-6115-440-10
TM 5-6115-440-20
TM 5-6115-465-12
TM 5-6115-465-34
TM 5-6115-545-12
TM 5-6115-545-34
TM 5-6115-584-12
TM 5-6115-584-34
TM 5-6115-585-12
TM 5-6115-585-34
TM 5-6115-586-12
TM 5-6115-590-12
TM 5-6115-590-34
TM 5-6115-593-12
TM 5-6115-596-14
TM 5-6115-600-12
TM 5-6115-600-34
TM 5-6115-612-12
TM 5-6115-612-34
TM 5-6115-614-12
TM 5-6115-615-12
TM 5-6115-615-34
TM 5-6115-629-14&P
TM 9-2815-252-24

Related
DA PAM 750-8
FM 5-424

References

Required	Related
TM 9-2815-254-24	
TM 9-2815-256-24	
TM 9-6115-464-12	
TM 9-6115-542-24&P	
TM 9-6115-545-24P	
TM 9-6115-624-BD	
TM 9-6115-641-10	
TM 9-6115-641-24	
TM 9-6115-642-10	
TM 9-6115-642-24	
TM 9-6115-643-10	
TM 9-6115-643-24	
TM 9-6115-644-10	
TM 9-6115-644-24	
TM 9-6115-645-10	
TM 9-6115-645-24	
TM 9-6115-663-13&P	

Correct Malfunction of Electrical Governor System on a Generator Set

091-52D-1182

Conditions: In a contemporary operational environment, given a generator set, maintenance request or equipment inspection worksheet describing equipment malfunctions, general mechanic's tool kit, digital multimeter, hearing protection, applicable technical publications, and with supervision/assistance.

Standards: Correct malfunction of electrical governor on a generator set in accordance with applicable technical publications. When the task is completed, the generator set must be fully mission-capable.

Performance Steps

1. Select applicable publications
2. Select and use applicable tools and test, measurement, and diagnostic equipment (TMDE).
3. Practice shop safety and maintenance TMDE.
4. Inspect the electrical governor on a generator set.
5. Test the electrical governor.
6. Repair electrical governor, as required.
7. Replace electrical governor, as required.
8. Perform a final operational test to verify fault(s) have been corrected.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	GO	NO-GO
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools and TMDE.	____	____
3. Practiced shop safety and maintenance TMDE.	____	____
4. Inspected the electrical governor on a generator set.	____	____
5. Tested the electrical governor.	____	____
6. Repaired electrical governor, as required.	____	____
7. Replaced electrical governor, as required.	____	____
8. Performed a final operational test to verify fault(s) have been corrected.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

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TM 5-6115-585-12
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TM 5-6115-586-12
TM 5-6115-590-12
TM 5-6115-590-34
TM 5-6115-593-12
TM 5-6115-596-14
TM 5-6115-600-12
TM 5-6115-600-34
TM 5-6115-612-12
TM 5-6115-612-34
TM 5-6115-614-12
TM 5-6115-615-12
TM 5-6115-615-34
TM 5-6115-629-14&P
TM 9-2815-252-24
TM 9-2815-254-24

References

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TM 9-6115-542-24&P
TM 9-6115-545-24P
TM 9-6115-624-BD
TM 9-6115-641-10
TM 9-6115-641-24
TM 9-6115-642-10
TM 9-6115-642-24
TM 9-6115-643-10
TM 9-6115-643-24
TM 9-6115-644-10
TM 9-6115-644-24
TM 9-6115-645-10
TM 9-6115-645-24
TM 9-6115-663-13&P

Correct Malfunction of Control Panel Components on a Generator Set
091-52D-1101

Conditions: In a contemporary operational environment, given a generator set, maintenance request or equipment inspection worksheet describing equipment malfunctions, general mechanic's tool kit, digital multimeter, hearing protection, applicable technical publications, and with supervision/assistance.

Standards: Correct malfunction of control panel components on a generator set in accordance with the applicable technical publications. When the task is completed, the generator set must be fully mission-capable.

Performance Steps

1. Select and use applicable publications.
2. Select and use applicable tools and test, measurement, and diagnostic equipment (TMDE).
3. Practice shop safety and maintenance discipline.
4. Inspect the control panel components on a generator set.
5. Test the control panel components.
6. Repair control panel components as required.
7. Replace control panel components as required.
8. Perform a final operational test to verify fault(s) have been corrected.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	GO	NO-GO
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools and TMDE.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Inspected the control panel components on a generator set.	____	____
5. Tested the control panel components.	____	____
6. Repaired control panel components, as required.	____	____
7. Replaced control panel components, as required.	____	____
8. Performed a final operational test to verify fault(s) have been corrected.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required
DA FORM 5988-E
TM 5-6115-271-14
TM 5-6115-423-15
TM 5-6115-440-10
TM 5-6115-440-20
TM 5-6115-465-12
TM 5-6115-465-34
TM 5-6115-545-12
TM 5-6115-545-34
TM 5-6115-584-12
TM 5-6115-584-34
TM 5-6115-585-12
TM 5-6115-585-34
TM 5-6115-586-12
TM 5-6115-590-12
TM 5-6115-590-34
TM 5-6115-593-12
TM 5-6115-596-14
TM 5-6115-600-12
TM 5-6115-600-34
TM 5-6115-612-12
TM 5-6115-612-34
TM 5-6115-614-12
TM 5-6115-615-12
TM 5-6115-615-34
TM 5-6115-629-14&P
TM 9-6115-464-12
TM 9-6115-542-24&P
TM 9-6115-545-24P
TM 9-6115-641-10

Related
DA PAM 750-8
FM 5-424
TC 9-62
TM 9-2815-252-24
TM 9-2815-254-24
TM 9-2815-256-24
TM 9-6115-624-BD

References

Required	Related
TM 9-6115-641-24	
TM 9-6115-642-10	
TM 9-6115-642-24	
TM 9-6115-643-10	
TM 9-6115-643-24	
TM 9-6115-644-10	
TM 9-6115-644-24	
TM 9-6115-645-10	
TM 9-6115-645-24	
TM 9-6115-663-13&P	

Perform Preventive Maintenance Checks and Services on a Generator Set

091-52D-1111

Conditions: In a contemporary operational environment, given a generator set, optical anti freeze tester, battery, goggles, apron, general mechanic's tool kit, rags, DA Form 5988-E (Equipment Inspection Maintenance Worksheet [EGA]), applicable technical publications and forms, hearing protection, and with supervision/assistance.

Standards: Perform preventive maintenance checks and services (PMCS) on a generator in accordance with the applicable technical publications.

Performance Steps

1. Select and use applicable publications.
2. Select and used applicable tools to perform PMCS on a generator set.
3. Practice shop safety and maintenance discipline.
4. Perform before-operation PMCS on a generator set.
5. Operate the generator set.
6. Perform during-operation PMCS.
7. Shut down the generator set.
8. Perform after-operation PMCS.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	GO	NO-GO
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools to perform PMCS on a generator set.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Performed before-operation PMCS on a generator set.	____	____
5. Operated the generator set.	____	____
6. Performed during-operation PMCS.	____	____
7. Shut down the generator set.	____	____
8. Performed after-operation PMCS.	____	____
9. Ensured required maintenance forms had been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	DA PAM 750-8
DA FORM 5988-E	FM 5-424
TM 5-6115-271-14	TM 5-6115-440-20
TM 5-6115-423-15	TM 5-6115-465-34
TM 5-6115-440-10	TM 5-6115-545-34
TM 5-6115-465-12	TM 5-6115-584-34
TM 5-6115-545-12	TM 5-6115-585-34
TM 5-6115-584-12	TM 5-6115-590-34
TM 5-6115-585-12	TM 5-6115-600-34
TM 5-6115-586-12	TM 5-6115-612-34
TM 5-6115-590-12	TM 5-6115-615-34
TM 5-6115-593-12	TM 9-2815-252-24
TM 5-6115-596-14	TM 9-2815-254-24
TM 5-6115-600-12	TM 9-2815-256-24
TM 5-6115-612-12	TM 9-6115-542-24&P
TM 5-6115-614-12	TM 9-6115-545-24P
TM 5-6115-615-12	TM 9-6115-624-BD
TM 5-6115-629-14&P	TM 9-6115-641-24
TM 9-6115-464-12	TM 9-6115-642-24
TM 9-6115-641-10	TM 9-6115-643-24
TM 9-6115-642-10	TM 9-6115-645-24
TM 9-6115-643-10	
TM 9-6115-644-10	
TM 9-6115-644-24	
TM 9-6115-645-10	
TM 9-6115-663-13&P	

Subject Area 2: ENGINE TASKS

Correct Malfunction of Battery Charging System on the Engine of a Generator Set
091-52D-1183

Conditions: In a contemporary operational environment, given a generator set, maintenance request or equipment inspection worksheet describing equipment malfunctions, general mechanic's tool kit, schematic and wiring diagram, digital multimeter, hearing protection, applicable technical publications, and with supervision/assistance.

Standards: Correct malfunction of battery charging alternator on a generator set in accordance with the applicable technical publications. When the task is completed, the generator set must be fully mission-capable.

Performance Steps

1. Select and used applicable publications.
2. Select and use applicable tools and test, measurement, and diagnostic equipment (TMDE).
3. Practice shop safety and maintenance discipline.
4. Inspect the battery charging alternator.
5. Test the battery charging alternator.
6. Repair battery charging alternator, as required.
7. Replace battery charging alternator, as required.
8. Perform a final operational test to verify fault(s) have been corrected.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	GO	NO-GO
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools and TMDE.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Inspected the battery charging alternator.	____	____
5. Tested the battery charging alternator.	____	____
6. Repaired battery charging alternator, as required.	____	____
7. Replaced battery charging alternator, as required.	____	____
8. Performed a final operational test to verify fault(s) have been corrected.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
TM 5-6115-584-34	FM 5-424
TM 5-6115-585-34	TC 9-62
TM 9-6115-641-24	TM 5-6115-584-12
TM 9-6115-642-24	TM 5-6115-585-12
TM 9-6115-643-24	TM 9-6115-644-24
TM 9-6115-645-24	TM 9-6115-645-10

Correct Malfunction of Components of the Lubrication System on a Diesel Engine of a Generator Set

091-52D-1184

Conditions: In a contemporary operational environment, given a generator set, maintenance request or equipment inspection worksheet describing equipment malfunctions, general mechanic's tool kit, hearing protection, applicable technical publications, and with supervision/assistance.

Standards: Correct malfunction of lubrication system of a generator set in accordance with the applicable technical publications. When the task is completed, the generator set must be fully mission-capable.

Performance Steps

1. Select and use applicable publications.
2. Select and use applicable tools and test, measurement, and diagnostic equipment (TMDE).
3. Practice shop safety and maintenance discipline.
4. Inspect the lubrication system.
5. Diagnose the lubrication system.
6. Test the lubrication system.
7. Repair lubrication system as required.
8. Perform a final operational test to verify fault(s) have been corrected.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	GO	NO-GO
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools and TMDE.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Inspected the lubrication system.	____	____
5. Diagnosed the lubrication system.	____	____
6. Tested the lubrication system.	____	____
7. Repaired lubrication system as required.	____	____
8. Performed a final operational test to verify fault(s) have been corrected.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
DA FORM 2404	FM 5-424
TM 5-6115-465-34	
TM 5-6115-545-12	
TM 5-6115-545-34	
TM 5-6115-584-12	
TM 5-6115-584-34	
TM 5-6115-585-12	
TM 5-6115-585-34	
TM 5-6115-590-34	
TM 9-2815-253-24	
TM 9-2815-253-24P	
TM 9-2815-254-24	
TM 9-6115-542-24&P	
TM 9-6115-641-10	
TM 9-6115-641-24	
TM 9-6115-642-24	
TM 9-6115-643-24	
TM 9-6115-644-24	
TM 9-6115-645-24	
TM 9-8000	

Correct Malfunction of the Fuel System on a Diesel Engine of a Generator Set
091-52D-1185

Conditions: In a contemporary operational environment, given a generator set, maintenance request or equipment inspection worksheet describing equipment malfunctions, general mechanic's tool kit, hearing protection, applicable technical publications, and with supervision/assistance.

Standards: Correct malfunction of fuel transfer pump on a diesel engine on a generator set in accordance with the applicable technical publications. When the task is completed, the generator set must be fully mission-capable.

Performance Steps

1. Select and use applicable publications.
2. Select and use applicable tools.
3. Practice shop safety and maintenance discipline.
4. Inspect the fuel transfer pump on a diesel engine.
5. Test fuel transfer pump.
6. Repair fuel transfer pump, as required.
7. Replace fuel transfer pump, as required.
8. Perform a final operational test to verify fault(s) have been corrected.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	GO	NO-GO
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Inspected the fuel transfer pump on a diesel engine.	____	____
5. Tested fuel transfer pump.	____	____
6. Repaired fuel transfer pump, as required.	____	____
7. Replaced fuel transfer pump, as required.	____	____
8. Performed a final operational test to verify fault(s) have been corrected.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
TM 9-6115-464-12	TM 5-6115-271-14
TM 9-6115-542-24&P	TM 5-6115-423-15
TM 9-6115-545-24P	TM 5-6115-440-10
TM 9-6115-643-10	TM 5-6115-440-20
TM 9-6115-643-24	TM 5-6115-465-12
TM 9-6115-644-10	TM 5-6115-465-34
TM 9-6115-644-24	TM 5-6115-545-12
	TM 5-6115-545-12-HR
	TM 5-6115-545-34
	TM 5-6115-584-12
	TM 5-6115-584-34
	TM 5-6115-585-12
	TM 5-6115-585-34
	TM 5-6115-586-12
	TM 5-6115-590-12
	TM 9-6115-624-BD
	TM 9-6115-639-13&P
	TM 9-6115-641-10
	TM 9-6115-641-24
	TM 9-6115-642-10
	TM 9-6115-642-24
	TM 9-6115-645-10

Correct Malfunction of the Starting System on a Diesel Engine of a Generator Set
091-52D-1186

Conditions: In a contemporary operational environment, given a generator set, maintenance request or equipment inspection worksheet describing equipment malfunctions, general mechanic's tool kit, schematics and wiring diagram, digital multimeter, hearing protection, applicable technical publications, and with supervision/assistance.

Standards: Correct malfunction of the starter assembly on a generator set in accordance with the applicable technical publications. When the task is completed, the generator set must be fully mission-capable.

Performance Steps

1. Select and use applicable publications.
2. Select and use applicable tools and test, measurement, and diagnostic equipment (TMDE).
3. Practice shop safety and maintenance discipline.
4. Inspect the starter assembly.
5. Diagnose the starter assembly.
6. Repair starter assembly, as required.
7. Replace starter assembly, as required.
8. Perform a final operational test to verify fault(s) have been corrected.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set which is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	GO	NO-GO
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools and TMDE.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Inspected the starter assembly.	____	____
5. Diagnosed the starter assembly.	____	____
6. Repaired starter assembly, as required.	____	____
7. Replaced starter assembly, as required.	____	____
8. Performed a final operational test to verify fault(s) have been corrected.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
TM 5-6115-465-34	TM 5-6115-545-12-HR
TM 5-6115-545-12	TM 5-6115-584-12
TM 5-6115-545-34	TM 5-6115-585-12
TM 5-6115-584-34	TM 5-6115-586-12
TM 5-6115-585-34	TM 5-6115-590-12
TM 9-6115-643-10	TM 5-6115-590-34
TM 9-6115-645-24	TM 5-6115-593-12
TM 9-6115-663-13&P	TM 5-6115-596-14
TM 9-6115-668-13	TM 5-6115-600-12
	TM 5-6115-600-34
	TM 9-6115-464-12
	TM 9-6115-542-24&P
	TM 9-6115-545-24P
	TM 9-6115-624-BD
	TM 9-6115-639-13&P
	TM 9-6115-641-10
	TM 9-6115-641-24
	TM 9-6115-642-10
	TM 9-6115-642-24
	TM 9-6115-643-24
	TM 9-6115-644-10
	TM 9-6115-644-24
	TM 9-6115-645-10

Subject Area 3: WELDING MACHINE TASKS

Correct Malfunction on the DC Circuitry of an Arc Welder
091-52D-1187

Conditions: In a contemporary operational environment, given an arc welder, general mechanic's tool kit, schematic and wiring diagrams, digital multimeter, clean rags, hearing protection, applicable technical publications and forms, and with supervision/assistance.

Standards: Perform preventive maintenance checks and services (PMCS) on a welding machine in accordance with technical publications.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Steps

1. Select and use applicable publications.
2. Select and use applicable tools and test, measurement, and diagnostic equipment (TMDE).
3. Practice shop safety and maintenance discipline.
4. Inspect the starter assembly.
5. Diagnose the starter assembly.
6. Repair starter assembly, as required.
7. Replace starter assembly, as required.
8. Perform a final operational test to verify fault(s) have been corrected.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Performance Measures	GO	NO-GO
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Performed before-operation PMCS.	____	____
5. Operated the welding machine.	____	____
6. Performed during-operation PMCS.	____	____
7. Shut down the welding machine.	____	____
8. Performed after-operation PMCS.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
TM 9-3431-266-14&P-1	FM 5-424
TM 9-3431-266-14&P-2	
TM 9-3431-272-13&P	

Subject Area 4: EMPLOYMENT OF MOBILE POWER AND DISTRIBUTION SYSTEMS

Perform Paralleling Procedures on Generator Sets

091-52D-1189

Conditions: As a power-generation equipment repairer in a contemporary operational environment, given two or more generator sets, applicable tool kit, FM 5-424, and applicable generator set technical manuals (TMs).

Standards: You must synchronize and perform parallel operation of two or more generator sets in accordance with the performance measures and the appropriate TMs.

Performance Steps

1. Close the main circuit breaker on the base set.
2. Ensure that the voltmeter indicates the frequency required for the load.
   a. During the synchronizing process the base (operating) generator set may be connected to the load and operating or it may be disconnected from the load and operating.
   b. After steps 1 and 2 are completed, the incoming generator set may be synchronized with the base unit.
3. Open the circuit breaker on the incoming generator set.
4. Ensure that the voltage and frequency outputs of the incoming generator set are the same as those of the base set.
5. Place the paralleling switch on the control panels of the base and incoming generator sets in the ON position. When the paralleling switches are on, the two paralleling lamps on the control panel of the incoming set will begin to blink on and off at the same time if the generator sets are connected properly.
   a. Ensure that the lights blink in unison.
   b. Adjust the throttle (on utility sets) of the frequency adjust rheostat (on precise sets) until the lamps go on and off at 3- to 5-second intervals.
   c. When the lights are completely dark, close the main circuit breaker on the incoming set until the kilowatt meter indicates one-half of the power of the base set.
   d. Adjust the voltage rheostats on both sets, if necessary to eliminate crosscurrents.
6. When the synchronizing lamps blink in unison the two sets are operating as one base unit.

Note: The following step is for paralleling operations of 3 or more generators.

7. Complete steps 3 through 6 for each additional incoming set.
   a. The percent -of-power meter on the third set should indicate one-third of the load of the base set.
   b. After all generator sets are operating in parallel, divide the load equally among them. To do this, adjust the voltage and frequency outputs of each set.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with

an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Closed the main circuit breaker on the base set.	____	____
2. Ensured that the voltmeter indicated the frequency required for the load. After steps 1 and 2 were completed, the incoming generator set may be synchronized with the base unit.	____	____
3. Opened the circuit breaker on the incoming generator set.	____	____
4. Ensured that the voltage and frequency outputs of the incoming generator set are the same as those of the base set.	____	____
5. Placed the paralleling switch on the control panels of the base and incoming generator sets in the ON position. When paralleling switches are on, the two paralleling lamps on the control panel of the incoming set will begin to blink on and off at the same time if the generator sets are connected properly.	____	____
6. When synchronizing lamps blink in unison the two sets are operating as one base unit.	____	____
Note: The following step is for paralleling operations of 3 or more generators.		
7. Completed steps 3 through 6 for each additional incoming set.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
FM 5-424	TM 9-6115-644-10
	TM 9-6115-645-10

Perform Procedures to Determine Generator Selection to Meet a Particular Power Demand

091-52D-1188

Conditions: As a power-generation equipment repairer in a contemporary operational environment, given generator set, applicable tool kit, and FM 5-424, equipment specified in references and a field unit's power distribution system.

Standards: Select the number and types of generators that can best meet the unit's power requirements in accordance with references. When the task is completed, the power distribution system will be set up and operate in accordance with references.

Performance Steps

1. Compute the load.
    a. Map the field unit.
    b. Determine the electrical load for each area.
    c. Compute the connected load for each structure.
    d. Compute the demand load.
    e. Compute the diversity factor.
    f. Compute the power factor.
    g. Compute the voltage drop.
    h. Compute for growth.
2. Compute the cable size.
    a. Compute total current demand for each phase.
    b. Determine wire size capable of carrying the total current.
    c. Determine the total resistance of the cable when it is connected between the generator set and the load.
3. Balance the load.
    a. Single Phase Systems.
    b. Three Phase Systems.
4. Select generator set.
    a. Calculate the following criteria.
        (1) Electrical loads to supply.
        (2) Kilowatt rating requirements.
        (3) Operating voltages required.
        (4) Number of phases required.
        (5) Frequency requirements.
        (6) Availability of fuels.
        (7) Expected life of the field unit.
        (8) Availability of skilled maintenance personnel.
        (9) Probable load deviation.
    b. Calculate power and voltage requirements.
    c. Calculate Load Classification requirements.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system

maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Computed the load.	____	____
2. Computed the cable size.	____	____
3. Balanced the load.	____	____
4. Selected generator set.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
FM 5-424	TM 9-2815-252-24
	TM 9-2815-254-24
	TM 9-2815-256-24
	TM 9-6115-641-10
	TM 9-6115-641-24
	TM 9-6115-642-24
	TM 9-6115-643-10
	TM 9-6115-643-24
	TM 9-6115-644-24
	TM 9-6115-645-10
	TM 9-6115-645-24
	TM 9-8000

Subject Area 5: MAST AND ELECTRIC POWER PLANT MAINTENANCE (ASI C-9 ONLY)

Diagnose and Correct Malfunction of a Defective Hydraulic Pneumatic Mast System
091-ASIC9-1002

Conditions: In a contemporary operational environment, given a field or classroom environment, given a Hydraulic Pneumatic Mast System.

Standards: Diagnose and correct malfunction in accordance with technical manual (TM) 11-5985-368-12&P.

Performance Steps

1. Review work request.
2. Review equipment inspection and maintenance work sheet and/or work request.
3. Ensure task is within shop capability/authorization.
4. Determine the require maintenance action.
5. Ensure applicable technical publication is available.
6. Determine if required maintenance is within shop capability/authorization.
7. Ensure proper tool are available to inspect, repair/replace, and test hydraulic mast system.
8. Select necessary tools and test equipment.
9. Perform initial inspection.
10. Select necessary publications.
11. Diagnose faults(s) and determine maintenance action to be performed.
12. Identify repair parts and requisition, if required.
13. Follow all safety precautions.
14. Assign personnel to perform the task.
15. Identify faults.
16. Ensure all safety precautions and procedures are followed.
17. Determine corrective action.
18. Provide assistance when necessary.
19. Complete The Army Maintenance Management System (TAMMS) form, when required.
20. Repair hydraulic mast assembly to acceptable standards.
21. Conduct an in process inspection.
22. Perform a final inspection to ensure the Hydraulic Pneumatic Mast assembly is fully mission-capable.

Performance Measures	GO	NO-GO
1. Reviewed work request.	____	____
2. Reviewed equipment inspection and maintenance work sheet and/or work request.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured applicable technical publications are available.	____	____
6. Determined if required maintenance is within shop capability/authorization.	____	____
7. Ensured proper tools are available to inspect, repair/replace, and test the hydraulic mast system.	____	____
8. Selected necessary tools and test equipment.	____	____
9. Performed initial inspection.	____	____
10. Selected necessary publications.	____	____
11. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
12. Identified repair parts and requisition, if required.	____	____
13. Followed all safety precautions.	____	____
14. Assigned personnel to perform task.	____	____
15. Identified faults.	____	____
16. Ensured all safety precautions and procedures are followed.	____	____
17. Determined corrective action.	____	____
18. Provided assistance when necessary.	____	____
19. Completed TAMMS forms, as required.	____	____
20. Repaired hydraulic mast assembly to acceptable standards.	____	____
21. Conducted an in-process inspection.	____	____
22. Performed a final inspection to ensure the Hydraulic Pneumatic Mast assembly is fully mission-capable.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
TM 11-5985-368-12&P	

Perform Preventive Maintenance Checks and Services on a Hydraulic-Pneumatic Mast
091-ASIC9-1003

Conditions: In a contemporary operational environment given a field or classroom, antenna mast assembly.

Standards: Perform preventive maintenance checks and services (PMCS) on a Hydraulic-Pneumatic Mast in accordance with technical manual (TM) 11-5985-368-12 and TM 11-5985-368-34.

Performance Steps

1. Select and use applicable publications.
2. Select and use applicable tools to perform PMCS on the Hydraulic-Pneumatic Mast.
3. Practice shop safety and maintenance discipline.
4. Perform before-operation PMCS on a Hydraulic-Pneumatic Mast.
5. Operate the Hydraulic-Pneumatic Mast.
6. Perform during-operation PMCS.
7. Shut down the Hydraulic Pneumatic Mast
8. Perform after-operation PMCS.
9. Ensure required forms have been completed.
10. Maintain tools and equipment.

Performance Measures	**GO**	**NO-GO**
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools to perform PMCS on a Hydraulic-Pneumatic Mast.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Performed before-operation PMCS on a Hydraulic-Pneumatic Mast.	____	____
5. Operated the Hydraulic-Pneumatic Mast.	____	____
6. Performed during-operation PMCS.	____	____
7. Shut down the Hydraulic-Pneumatic Mast.	____	____
8. Performed after-operation PMCS.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
TM 11-5985-368-12&P	
TM 11-5985-368-34	

Perform Preventive Maintenance Checks and Services on the Electrical Power Plant III
091-ASIC9-1004

Conditions: In a contemporary operational environment given a field or garrison environment, Electrical Power Plant III general mechanics tool kit, applicable technical publications and forms, hearing protection.

Standards: Perform preventive maintenance checks and services (PMCS) on the Electrical Power Plant III in accordance with technical manual (TM) 11-5985-368-12 and TM 11-5985-368-34.

Performance Steps

1. Select and use applicable publications.
2. Select and use applicable tools to perform PMCS on an Electrical Power Plant III.
3. Practice shop safety and maintenance discipline.
4. Perform before-operation PMCS on an Electrical Power Plant III.
5. Operate the Electrical Power Plant III.
6. Perform during-operation PMCS.
7. Shut down the Electrical Power Plant III.
8. Perform after-operation PMCS.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Performance Measures	**GO**	**NO-GO**
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools to perform PMCS on a Electrical Power Plant III.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Performed before-operation PMCS on an Electrical Power Plant III.	____	____
5. Operated the Electrical Power Plant III.	____	____
6. Performed during-operation PMCS.	____	____
7. Shut down the Electrical Power Plant III.	____	____
8. Performed after-operation PMCS.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
TM 11-5985-368-12&P	
TM 11-5985-368-34	

Test Operate the Electrical Power Plant III

091-ASIC9-1005

Conditions: In a contemporary operational environment given a classroom/shop, given instruction, references, an Electric Power Plant III, necessary tools and equipment.

Standards: Operate the Electric Power Plant III in accordance with TM 9-6115-668-13.

Performance Steps

1. Select and use applicable publications.
2. Select and use applicable tools.
3. Practice shop safety and maintenance discipline.
4. Perform preventive maintenance checks and services (PMCS) on the Electrical Power Plant III in accordance with applicable references.
5. Operate the Electric Power Plant III.
6. Perform shutdown of Electric Power Plant III.

Performance Measures	**GO**	**NO-GO**
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Performed PMCS on the Electrical Power Plant III in accordance with applicable references.	____	____
5. Operated the Electric Power Plant III.	____	____
6. Performed shutdown of Electric Power Plant III.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
TM 9-6115-668-13	

Correct Malfunction on the Electrical System on the Electric Power Plant III
091-ASIC9-1006

Conditions: In a contemporary operational environment given a field or garrison environment, Electrical Power Plant III general mechanics tool kit, applicable technical publications and forms, hearing protection.

Standards: Correct malfunction on the electrical system of the Electric Power Plant III in accordance with TM 11-5985-368-34.

Performance Steps

1. Select and use applicable publications.
2. Select and use applicable tools and test, measurement, and diagnostic equipment (TMDE).
3. Practice shop safety and maintenance discipline.
4. Inspect the control panel components on the Electrical Power Plant III.
5. Test the electrical system components.
6. Repair electrical system components, as required.
7. Replace electrical system components, as required.
8. Perform a final operational test to verify fault(s) have been corrected.
9. Ensure required maintenance forms have been completed.
10. Maintain tools and equipment.

Performance Measures	**GO**	**NO-GO**
1. Selected and used applicable publications.	____	____
2. Selected and used applicable tools and TMDE.	____	____
3. Practiced shop safety and maintenance discipline.	____	____
4. Inspected the control panel components on the Electrical Power Plant III.	____	____
5. Tested the electrical system components.	____	____
6. Repaired electrical system components, as required.	____	____
7. Replaced electrical system components, as required.	____	____
8. Performed a final operational test to verify fault(s) have been corrected.	____	____
9. Ensured required maintenance forms have been completed.	____	____
10. Maintained tools and equipment.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
TM 11-5985-368-12&P	

Skill Level 3

Subject Area 6: COMMON LOGISTICS TASKS

Manage a Shop Safety Program
091-CLT-3001

Conditions: In a contemporary operational environment given a maintenance site/facility, maintenance personnel, and applicable references.

Standards: Ensured that personnel followed all safety procedures and preventable accidents were avoided. If accidents occurred, they were properly recorded and reported in accordance with applicable references.

Performance Steps

1. Ensure all safety references were on hand.
2. Establish and document goals and requirements for a successful shop safety and accident prevention program.
3. Brief and regularly update subordinates on shop safety program.
4. Conduct initial safety inspections.
5. Ensure initial safety concerns and violations are corrected.
6. Conduct scheduled and unscheduled safety inspections.
7. Document safety violations, report the violations as required, and conduct follow-up inspections to ensure violations were corrected.
8. Keep necessary records of safety inspections and accident reports.
9. Ensure material safety data sheets (MSDS) are prepared and maintained as required in applicable work areas.

Performance Measures	**GO**	**NO-GO**
1. Ensured all safety references were on hand.	____	____
2. Established and documented goals and requirements for a successful shop safety and accident prevention program.	____	____
3. Briefed and regularly updated subordinates on shop safety program.	____	____
4. Conducted initial safety inspections.	____	____
5. Ensured initial safety concerns and violations were corrected.	____	____
6. Conducted scheduled and unscheduled safety inspections.	____	____
7. Documented safety violations, reported the violations as required, and conducted follow-up inspections to ensure violations were corrected.	____	____
8. Kept necessary records of safety inspections and accident reports.	____	____
9. Ensured material safety data sheets (MSDS) were prepared and maintained as required in applicable work areas.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
AR 190-13	AR 385-10
AR 220-1	AR 385-40
AR 700-138	AR 385-55
AR 750-1	
DA PAM 750-8	
FM 4-30.3	
TB 43-180	

Maintain a Publications Library

091-CLT-3002

Conditions: In a contemporary operational environment given publications and storage location, local and higher headquarters publications indexes and publications procedures, standing operating procedure (SOP), and applicable forms and references.

Standards: Ensured required publications are on hand or ordered, publications were arranged and maintained properly, forms/records were properly maintained, and changes were posted in accordance with applicable in accordance with applicable references and local procedures.

Performance Steps

1. Determine all publications required by the maintenance shop or section.
2. Review and updated publications library SOP as needed.
3. Ensure that technical publications on hand or on order were the most current in accordance with DA Pamphlet 25-30.
4. Ensure that doctrinal, training, and organizational publications on hand or on order were the most current in accordance with DA Pamphlet 25-30 and local listings.
5. Ensure that administrative publications on hand or on order were the most current in accordance with DA Pamphlet 25-30.
6. Ensure that local and higher headquarters publications on hand or on order were the most current in accordance with DA Pamphlet 25-30 and local listings.
7. Prepare DA Form 4569-1-R (Security Assistance Publication Requisition Code Sheet (LRA)) in accordance with DA Pamphlet 25-33.
8. Prepare the required transmittal form in accordance with DA Pamphlet 25-33.
9. Prepare DA Form 17 (Requisition for Publications and Blank Forms) and DA Form 17-1 (Requisition for Publications and Blank Forms (Continuation Sheet) to request local and higher headquarters publications in accordance with DA Pamphlet 25-33 and local or higher headquarters publications requisitioning procedures.
10. Ensure that published changes were posted to applicable publications in accordance with DA Pamphlet 25-40 and publications change instructions.
11. Remove obsolete, rescinded, or superseded publications from library in accordance with DA Pamphlet 25-40 and publications change instructions.
12. Arrange publications in proper order and in a suitable location in accordance with DA Pamphlet 25-40.
13. Label binders used for storing library publications in accordance with AR 25-400-2 and DA Pamphlet 25-40.
14. Notify personnel to return loaned publications to the library in a timely manner in accordance with publications library SOP.
15. Update Army Publishing Directorate (APD), local, and higher headquarters publications accounts, as required, in accordance with DA Pamphlet 25-33 and local or higher headquarters publications account instructions.

Performance Measures	GO	NO-GO
1. Determined all publications required by the maintenance shop or section.	____	____
2. Reviewed and updated publications library SOP as needed.	____	____
3. Ensured that technical publications on hand or on order were the most current in accordance with DA Pamphlet 25-30.	____	____
4. Ensured that doctrinal, training, and organizational publications on hand or on order were the most current in accordance with DA Pamphlet 25-30 and local listings.	____	____
5. Ensured that administrative publications on hand or on order were the most current in accordance with DA Pamphlet 25-30.	____	____
6. Ensured that local and higher headquarters publications on hand or on order were the most current in accordance with DA Pamphlet 25-30 and local listings.	____	____
7. Prepared DA Form 4569-1-R (Security Assistance Publication Requisition Code Sheet (LRA)) in accordance with DA Pamphlet 25-33.	____	____
8. Prepared the required transmittal form in accordance with DA Pamphlet 25-33.	____	____
9. Prepared DA Form 17 (Requisition for Publications and Blank Forms) and DA Form 17-1 (Requisition for Publications and Blank Forms (Continuation Sheet) to request local and higher headquarters publications in accordance with DA Pamphlet 25-33 and local or higher headquarters publications requisitioning procedures.	____	____
10. Ensured that published changes were posted to applicable publications in accordance with DA Pamphlet 25-40 and publications change instructions.	____	____
11. Removed obsolete, rescinded, or superseded publications from library in accordance with DA Pamphlet 25-40 and publications change instructions.	____	____
12. Arranged publications in proper order and in a suitable location in accordance with DA Pamphlet 25-40.	____	____
13. Labeled binders used for storing library publications in accordance with AR 25-400-2 and DA Pamphlet 25-40.	____	____
14. Notified personnel to return loaned publications to the library in a timely manner in accordance with publications library SOP.	____	____
15. Updated Army Publishing Directorate (APD), local, and higher headquarters publications accounts, as required, in accordance with DA Pamphlet 25-33 and local or higher headquarters publications account instructions.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

AR 25-400-2
DA FORM 17
DA FORM 17-1
DA FORM 4569-1-R
DA PAM 25-30
DA PAM 25-33
DA PAM 25-40

Related

AR 25-11

Establish Maintenance Facilities

091-CLT-3003

Conditions: In a contemporary operational environment given a maintenance site, maintenance personnel, applicable equipment, maintenance shop/section standing operating procedure (SOP), and applicable references.

Standards: Set up a maintenance shop facility suitable for accomplishing necessary maintenance functions in accordance with applicable references.

Performance Steps

1. Ensure SOP and required reference were available.
2. Identify commander's maintenance requirements for accomplishing the unit mission.
3. Set up the maintenance facility in accordance with SOP.

Performance Measures	**GO**	**NO-GO**
1. Ensured SOP and required reference were available.	____	____
2. Identified commander's maintenance requirements for accomplishing the unit mission.	____	____
3. Set up the maintenance facility in accordance with SOP.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
FM 4-30.3	

Assist in Preparing a Standing Operating Procedure
091-CLT-3004

Conditions: In a contemporary operational environment given FM 4-30.3, higher headquarters standing operating procedure (SOP), and commander's guidance.

Standards: Prepared a draft copy of a maintenance shop/section internal or external SOP for supervisor's review, comment, and approval in accordance with applicable references.

Performance Steps

1. Ensure applicable publications were available.
2. Ensure unit policies and commander's guidance were followed.
3. Ensure shop operation policies were adequately addressed.
4. Update the shop SOP, as required.

Performance Measures	**GO**	**NO-GO**
1. Ensured applicable publications were available.	____	____
2. Ensured unit policies and commander's guidance were followed.	____	____
3. Ensured shop operation policies were adequately addressed.	____	____
4. Updated the shop SOP, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
FM 4-30.3	

Manage Tool Control Procedures
091-CLT-3005

Conditions: In a contemporary operational environment given applicable supply catalog(s), applicable references, and hand receipt forms.

Standards: Managed tool control procedures in accordance with applicable references.

Performance Steps

1. Ensure applicable references were available.
2. Establish policies and procedures for the control of tools.
3. Ensure all DA Form 2062s (Hand Receipt/Annex Number) were properly filled out and updated.
4. Ensure tools and equipment were inventoried in accordance with applicable references.
5. Ensure tool shortages were annotated on a shortage annex.
6. Ensure subordinates applied property accountability procedures.

Performance Measures	GO	NO-GO
1. Ensured applicable references were available.	____	____
2. Established policies and procedures for the control of tools.	____	____
3. Ensured all DA Form 2062s (Hand Receipt/Annex Number) were properly filled out and updated.	____	____
4. Ensured tools and equipment were inventoried in accordance with applicable references.	____	____
5. Ensured tool shortages were annotated on a shortage annex.	____	____
6. Ensured subordinates applied property accountability procedures.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required
AR 190-13
AR 220-1
AR 385-10
AR 385-40
AR 700-138
AR 750-1
DA FORM 2062
DA PAM 710-2-1
FM 1-02
FM 4-30.3

Related
DA PAM 750-8

Manage Key Control Procedures
091-CLT-3006

Conditions: In a contemporary operational environment given keys, key control rosters, key boxes/cabinets, and applicable publications.

Standards: Managed key control procedures in accordance with applicable references.

Performance Steps

1. Ensure necessary publications were available.
2. Establish key control policies and procedures.
3. Establish key control access rosters.
4. Ensure personnel were aware of their responsibilities for the security and accountability of keys.
5. Ensure key control access rosters were properly maintained and adhered to.

Performance Measures	**GO**	**NO-GO**
1. Ensured necessary publications were available.	____	____
2. Established key control policies and procedures.	____	____
3. Established key control access rosters.	____	____
4. Ensured personnel were aware of their responsibilities for the security and accountability of keys.	____	____
5. Ensured key control access rosters were properly maintained and adhered to.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
AR 190-13	
AR 190-51	

Recon Terrain/Route

091-CLT-3008

Conditions: In a contemporary operational environment given a maintenance situation/operation order (OPORD), operational overlay, grid coordinates of destination, vehicle with personnel, and applicable references.

Standards: Performed a route and terrain reconnaissance and selected the most appropriate route to follow and the most appropriate location to set up a maintenance site in accordance with maintenance situation or OPORD and applicable references.

Performance Steps

1. Ensure necessary equipment and publications were available.
2. Conduct a map reconnaissance of the terrain and route.
3. Select personnel for reconnaissance team.
4. Conduct a route reconnaissance to determine best access to destination and to ensure safety of personnel and equipment.
5. Recon terrain to determine suitability for maintenance site use, to determine best avenues of entry and exit, and to ensure safety of personnel and equipment.
6. Report findings and conclusions to supervisors.

Performance Measures	**GO**	**NO-GO**
1. Ensured necessary equipment and publications were available.	____	____
2. Conducted a map reconnaissance of the terrain and route.	____	____
3. Selected personnel for reconnaissance team.	____	____
4. Conducted a route reconnaissance to determine best access to destination and to ensure safety of personnel and equipment.	____	____
5. Reconned terrain to determine suitability for maintenance site use, to determine best avenues of entry and exit, and to ensure safety of personnel and equipment.	____	____
6. Reported findings and conclusions to supervisors.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
FM 4-30.3	
FM 5-170	

Supervise Maintenance Operations

091-CLT-3009

Conditions: In a contemporary operational environment given maintenance personnel, equipment, maintenance facility/site, standing operating procedures (SOPs), and applicable references.

Standards: Established and maintained an effective maintenance shop operation in accordance with SOP and applicable references.

Performance Steps

1. Ensure unit maintenance procedures are in accordance with AR 750-1, DA Pamphlet 750-3, and local and major Army command (MACOM) policies.
   a. Review unit SOPs for maintenance.
   b. Inform unit personnel of changes in policy and new policy that impacts unit SOP.

2. Provide technical assistance to unit maintenance activities.
   a. Inspect unit maintenance operations.
   b. Identify shortcomings.
   c. Make recommendations for corrective actions.
   d. Provide training in maintenance procedures.
   e. Provide training and technical assistance as needed for operations under extreme heat (up to 125 degrees F).
      (1) Cooling systems. Check coolant level daily. Maintain coolant levels approximately two inches below the radiator overflow pipe if so equipped. Check radiator air passages for obstructions frequently. Check fan belt for proper tension. Check coolant temperature indicators frequently for any indication of overheating.
      (2) Lubrication. Make sure that lubricants used are as specified for the prevailing ambient temperature in the current lubrication order.
      (3) Fuel system. When filling the fuel tanks, allow sufficient space for fuel expansion.
      (4) Batteries. Check electrolyte level frequently. Add distilled water as required to compensate for evaporation.
      (5) Engine. Kept the external surface of the engine as clean as possible.
   f. Provide training and technical assistance as needed for operations in dusty or sandy areas.
      (1) General. If possible, provide shelter for the equipment. Use available natural barriers to shield the equipment from blowing dust or sand.
      (2) Cleaning. Wipe dust and sand from the equipment frequently. When possible, thoroughly washed down with clean water.
      (3) Engine. Shorten the service interval for the engine air cleaner and oil filter to compensate for intake of additional dust or dirt. Kept external surface of engine as clean as possible.
      (4) Fuel systems. Drain sediment from fuel tanks, fuel strainers, and fuel filters frequently. Was particularly careful to prevent dust or dirt from entering the fuel tank/fuel system. Shorten the service intervals for the fuel filters appropriately.
      (5) Lubrication. Lubrication intervals must be shortened appropriately. Use particular care to keep lubricants from becoming contaminated with dust or dirt.

3. Provide maintenance management to units.
   a. Review reports (Materiel Condition Status Report [MCSR] and (Unit Level Logistics System-Ground [ULLS-G]).
   b. Coordinate with higher-level maintenance activities.
   c. Direct cross-leveling of maintenance assets/workloads.
   d. Prioritize maintenance efforts of units.

Performance Measures	GO	NO-GO
1. Ensured unit maintenance procedures are in accordance with AR 750-1, DA Pamphlet 750-3, and local and MACOM policies.	____	____
2. Provided technical assistance to unit maintenance activities.	____	____
3. Provided maintenance management to units.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
AR 385-10	
AR 385-40	
AR 385-55	
AR 600-55	
AR 700-138	
AR 700-4	
AR 710-2	
AR 725-50	
AR 735-5	
AR 750-1	
AR 750-43	
DA PAM 25-30	
DA PAM 710-2-1	
DA PAM 710-2-2	
DA PAM 750-1	
DA PAM 750-3	
DA PAM 750-8	
FM 4-30.3	

Interpret Maintenance Operational Overlay

091-CLT-3010

Conditions: In a contemporary operational environment given an operational overlay, map, maintenance situation/operation order (OPORD), and applicable references.

Standards: Interpreted the maintenance operational overlay by identifying key features and elements of the area of operations in accordance with applicable references.

Performance Steps

1. Ensure necessary references and materials were available.
2. Identify mapping symbols on the operational overlay.
3. Identify key features of the map and operational overlay.
4. Identify key elements of the area of operations on the map and operational overlay.
5. Update the operational overlay, as necessary.

Performance Measures	**GO**	**NO-GO**
1. Ensured necessary references and materials were available.	____	____
2. Identified mapping symbols on the operational overlay.	____	____
3. Identified key features of the map and operational overlay.	____	____
4. Identified key elements of the area of operations on the map and operational overlay.	____	____
5. Updated the operational overlay, as necessary.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
FM 1-02	
FM 4-30.3	
FM 5-170	

Deploy Maintenance Support Teams

091-CLT-3011

Conditions: In a contemporary operational environment given a request for maintenance support/maintenance situation, map, operational overlay, grid coordinates of destination, vehicles, equipment, maintenance personnel, FM 4-30.3, and other applicable references.

Standards: Deployed the maintenance support team in accordance with the maintenance situation or request for maintenance support and applicable references.

Performance Steps

1. Review the request for maintenance support/maintenance situation.
2. Determine personnel and equipment requirements necessary to perform the mission.
3. Identify available resources for the support team, including personnel with applicable military occupational specialties (MOSs), vehicles, tools, test equipment, publications, repair parts, time, and facilities as necessary.
4. Determine requirements for defending the team.
5. Brief the team on the mission.
6. Deploy the maintenance support team.

Performance Measures	**GO**	**NO-GO**
1. Reviewed the request for maintenance support/maintenance situation.	____	____
2. Determined personnel and equipment requirements necessary to perform the mission.	____	____
3. Identified available resources for the support team, including personnel with applicable MOSs, vehicles, tools, test equipment, publications, repair parts, time, and facilities as necessary.	____	____
4. Determined requirements for defending the team.	____	____
5. Briefed the team on the mission.	____	____
6. Deployed the maintenance support team.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
FM 4-30.3	FM 1-02
	FM 5-170

Interpret a Standard Army Maintenance System (SAMS) Generated Maintenance Report
091-CLT-3012

Conditions: In a contemporary operational environment given a computer system or systems with Standard Army Maintenance System-Level 1 (SAMS-1) software, database of equipment files, SAMS operator, Automated Information Systems Manual (AISM) 18-L21-AHN-BUR-UM, AISM 18-L26-AHO-BUR-EM, DA Form 2407 (Maintenance Request), DA Pamphlet 750-8, and applicable references.

Standards: Supervised SAMS-1 functions of a direct support level maintenance shop in accordance with applicable references.

Performance Steps

1. Ensure necessary equipment and publications were available.
2. Ensure SAMS operator was adequately trained.
3. Review the SAMS-1 system and the flow of information to and from system interfaces.
4. Review the purpose and use of SAMS-1 categories and codes.
5. Supervise the processing of maintenance requests (DA Form 2407).
6. Interpret SAMS-1 report to identify maintenance trends and problems.
7. Request and interpret ad hoc reports, as necessary.

Performance Measures	**GO**	**NO-GO**
1. Ensured necessary equipment and publications were available.	____	____
2. Ensured SAMS operator was adequately trained.	____	____
3. Reviewed the SAMS-1 system and the flow of information to and from system interfaces.	____	____
4. Reviewed the purpose and use of SAMS-1 categories and codes.	____	____
5. Supervised the processing of maintenance requests (DA Form 2407).	____	____
6. Interpreted SAMS-1 report to identify maintenance trends and problems.	____	____
7. Requested and interpreted ad hoc reports, as necessary.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
AISM 18-L21-AHN-BUR-UM	
AISM 18-L26-AHO-BUR-EM	
DA FORM 2407	
DA PAM 750-8	

Manage the Unit Level Logistics System (ULLS)
091-CLT-3013

Conditions: In a contemporary operational environment given a computer system(s) with Unit Level Logistics System-Ground (ULLS-G) software, database of equipment files, associated Army Materiel Status System (AMSS) software, ULLS operator, and applicable references.

Standards: Supervised ULLS-G functions of a unit-level maintenance shop in accordance with applicable references.

Performance Steps

1. Ensure necessary equipment and references were available.
2. Ensure ULLS operator was properly trained.
3. Review the ULLS flow of information to and from system interfaces.
4. Review ULLS-G maintenance forms for accuracy.
5. Analyze ULLS-G reports and data to identify maintenance trends and problems.
   a. Document register.
   b. Prescribed load list (PLL) inventory report.
   c. Zero balance report.
   d. PLL excess management report.
   e. PLL inquiry.
   f. Non-mission-capable (NMC) report.
6. Analyze AMSS reports and data to identify maintenance trends and problems.
   a. AMSS authorization report.
   b. Projected fully mission-capable (FMC) rates report.
   c. Equipment exception report.
   d. System status summary.
   e. Class IX failure data by administrative number.
   f. Rollup by equipment identification code (EIC).
   g. Rollup by unit identification code (UIC).
   h. NMC report.

Performance Measures	**GO**	**NO-GO**
1. Ensured necessary equipment and references were available.	____	____
2. Ensured ULLS operator was properly trained.	____	____
3. Reviewed the ULLS flow of information to and from system interfaces.	____	____
4. Reviewed ULLS-G maintenance forms for accuracy.	____	____
5. Analyzed ULLS-G reports and data to identify maintenance trends and problems.	____	____
6. Analyzed AMSS reports and data to identify maintenance trends and problems.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
AR 710-2	
DA PAM 710-2-1	

Manage the Unit Army Oil Analysis Program (AOAP)
091-CLT-3014

Conditions: In a contemporary operational environment given Automated Oil Analysis Log Printout, unit and higher headquarters AOAP standing operating procedures (SOPs) and policies, and applicable references.

Standards: Managed the unit AOAP in accordance with applicable references.

Performance Steps

1. Ensure necessary publications are available.
2. Review the objectives and policies of the AOAP.
3. Identify the responsibilities of key AOAP personnel.
4. Ensure sampling intervals and procedures were followed.
5. Ensure samples are processed in accordance with applicable references and SOPs.
6. Ensure lab results are processed in accordance with applicable references and SOPs and follow-up actions were completed.

Performance Measures	**GO**	**NO-GO**
1. Ensured necessary publications were available.	____	____
2. Reviewed the objectives and policies of the AOAP.	____	____
3. Identified responsibilities of key AOAP personnel.	____	____
4. Ensured sampling intervals and procedures were followed.	____	____
5. Ensured samples were processed in accordance with applicable references and SOPs.	____	____
6. Ensured lab results were processed in accordance with applicable references and SOPs and follow-up actions were completed.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
DA PAM 750-8	
TB 43-0211	

Deploy Company Maintenance Team/Recovery Support Team

091-CLT-3015

Conditions: In a contemporary operational environment given maintenance situation or a request for maintenance support, map, operational overlay, grid coordinates of destination, vehicles, equipment, maintenance personnel, FM 1-02, FM 4-30.3, and FM 5-170.

Standards: Deployed the company maintenance team or recovery support team in accordance with the maintenance situation or request for maintenance support and applicable references.

Performance Steps

1. Review the request for maintenance support or maintenance situation.
2. Determine personnel and equipment requirements necessary to perform the mission.
3. Identify available resources for the company maintenance team or recovery support team, including personnel with applicable military occupational specialties (MOSs), vehicles, tools, test equipment, publications, repair parts, time, and facilities, as necessary.
4. Determine requirements for defending the team.
5. Brief the team on the mission:
   a. Review the operational overlay.
   b. Conduct a map reconnaissance of the route and destination.
6. Deploy the maintenance support team.

Performance Measures	**GO**	**NO-GO**
1. Reviewed the request for maintenance support or maintenance situation.	____	____
2. Determined personnel and equipment requirements necessary to perform the mission.	____	____
3. Identified available resources for the company maintenance team or recovery support team, including personnel with applicable MOSs, vehicles, tools, test equipment, publications, repair parts, time, and facilities, as necessary.	____	____
4. Determined requirements for defending the team.	____	____
5. Briefed the team on the mission:	____	____
6. Deployed the maintenance support team.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
FM 1-02	
FM 4-30.3	
FM 5-170	

Review the Army Materiel Status System (AMSS) Reports

091-CLT-3016

Conditions: In a contemporary operational environment given AMSS reports produced from a Unit Level Logistics System-Ground (ULLS-G) System, AR 710-2, and DA Pamphlet 710-2-1.

Standards: Analyzed AMSS reports and data to identify maintenance trends and problems in accordance with applicable references.

Performance Steps

1. Ensure necessary ULLS equipment and references were available.
2. Analyze AMSS reports and data to identify maintenance trends and problems.
   a. AMSS authorization report.
   b. Projected fully mission-capable (FMC) rates report.
   c. Equipment exception report.
   d. System status summary
   e. Class IX failure data by administrative number.
   f. Rollup by equipment identification code (EIC).
   g. Rollup by unit identification code (UIC).
   h. Non-mission-capable (NMC) report.

Performance Measures	**GO**	**NO-GO**
1. Ensured necessary ULLS equipment and references were available.	____	____
2. Analyzed AMSS reports and data to identify maintenance trends and problems.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
AR 710-2	
DA PAM 710-2-1	

Subject Area 7: TECHNICAL TASKS

Perform Diagnostic Procedures on a Load Bank
091-52D-3126

Conditions: In a contemporary operational environment, given diagnostic procedures on a load bank.

Standards: Troubleshoot the load bank and analyze the results to determine the cause of the malfunction, in accordance with technical manual (TM) 5-6115-423-15.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the load bank.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the load is repaired in accordance with standards.
17. Perform a final inspection to ensure the load bank is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set which is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds,

two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the load bank.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the load bank is repaired in accordance with standards.	____	____
17. Performed a final inspection to ensure the lubrication system is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
TM 5-6115-423-15	TM 9-2350-264-10-1 TM 9-2350-264-10-2 TM 9-6115-542-24&P

Perform Diagnostic Procedures on the Electrical Control System of a Generator Set
091-52D-3101

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures of the electrical control system on a generator set in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the electrical control system of a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the electrical control system is repaired in accordance with standards.
17. Perform a final inspection to ensure the electrical control system is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the electrical control system of a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the electrical control system is repaired in accordance with standards.	____	____
17. Performed a final inspection to ensure the electrical control system is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 5-6115-545-12

Related

DA PAM 750-8
FM 5-424
TC 9-62
TM 5-6115-545-34
TM 5-6115-584-12
TM 5-6115-584-34
TM 5-6115-585-12
TM 5-6115-585-34
TM 9-2815-252-24
TM 9-2815-254-24
TM 9-2815-256-24
TM 9-3431-266-14&P-1
TM 9-6115-641-10
TM 9-6115-641-24
TM 9-6115-643-10
TM 9-6115-643-24
TM 9-6115-645-10
TM 9-6115-645-24

Perform Diagnostic Procedures on a Voltage Regulator of a Generator Set
091-52D-3102

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision

Standards: Soldier must perform this task in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the voltage regulator of a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the voltage regulator system is repaired in accordance with standards.
17. Perform a final inspection to ensure the voltage regulator system is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the voltage regulator system of a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the voltage regulator system is repaired in accordance with standards.	____	____
17. Performed a final inspection to ensure the voltage regulator system is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TC 9-62
TM 5-6115-545-34
TM 5-6115-585-34

Related

EM 0074
LO 5-6115-615-12
TM 5-6115-585-12
TM 5-6115-615-12
TM 5-6115-615-34
TM 9-4935-451-14
TM 11-6625-3052-14

Perform Diagnostic Procedures on Fault Indicator Panel of a Generator Set

091-52D-3103

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures on a fault indication panel of a generator net in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the fault indicator panel of a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the fault indicator panel is repaired in accordance with standards.
17. Perform a final inspection to ensure the fault indicator panel is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the fault indicator panel of a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured fault indicator panel is repaired to acceptable standards.	____	____
17. Performed a final inspection to ensure the fault indicator panel of a generator set is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	Related
TM 5-6115-271-14	TM 5-6115-440-20
TM 5-6115-423-15	TM 5-6115-465-34
TM 5-6115-440-10	TM 5-6115-545-12
TM 5-6115-465-12	TM 5-6115-545-34
TM 5-6115-545-12-HR	TM 5-6115-584-34
TM 5-6115-584-12	TM 5-6115-585-34
TM 5-6115-585-12	TM 5-6115-590-12
TM 5-6115-586-12	TM 5-6115-590-34
TM 5-6115-593-12	TM 9-6115-542-24&P
TM 9-6115-464-12	TM 9-6115-545-24P
TM 9-6115-624-BD	TM 9-6115-639-13&P
TM 9-6115-641-10	TM 9-6115-641-24
TM 9-6115-642-10	TM 9-6115-642-24
TM 9-6115-643-24	TM 9-6115-643-10
	TM 9-6115-644-10
	TM 9-6115-644-24
	TM 9-6115-645-10
	TM 9-6115-645-24

Perform Diagnostic Procedures of Relay Assembly on a Generator Set

091-52D-3104

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures of relay assembly on a generator net in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the relay assembly of a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the relay assembly is repaired in accordance with standards.
17. Perform a final inspection to ensure the relay assembly is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the relay assembly of a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured relay assembly is repaired to acceptable standards.	____	____
17. Performed a final inspection to ensure the relay assembly is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 5-6115-545-34
TM 5-6115-585-12
TM 5-6115-590-12
TM 9-6115-624-BD
TM 9-6115-641-24
TM 9-6115-642-24

Related

TM 5-6115-440-20
TM 5-6115-465-12
TM 5-6115-465-34
TM 5-6115-545-12
TM 5-6115-545-12-HR
TM 5-6115-584-12
TM 5-6115-584-34
TM 5-6115-585-34
TM 5-6115-586-12
TM 5-6115-590-34
TM 5-6115-593-12
TM 9-6115-464-12
TM 9-6115-542-24&P
TM 9-6115-545-24P
TM 9-6115-639-13&P
TM 9-6115-641-10
TM 9-6115-642-10
TM 9-6115-643-10
TM 9-6115-643-24
TM 9-6115-644-10
TM 9-6115-644-24
TM 9-6115-645-10
TM 9-6115-645-24

Perform Diagnostic Procedures on a Governor Assembly of a Generator Set

091-52D-3105

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures on an electrical governor of a generator set in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the governor assembly of a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure governor assembly is repaired to acceptable standards.
17. Perform a final inspection to ensure the governor assembly is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set which is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds,

two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the governor assembly of a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured governor assembly is repaired to acceptable standards.	____	____
17. Performed a final inspection to ensure the governor assembly is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 5-6115-440-20
TM 5-6115-545-12
TM 5-6115-584-12
TM 5-6115-585-34
TM 5-6115-590-34
TM 9-6115-542-24&P
TM 9-6115-639-13&P
TM 9-6115-642-10
TM 9-6115-643-24
TM 9-6115-645-24

Related

TM 5-6115-465-12
TM 5-6115-465-34
TM 5-6115-545-12-HR
TM 5-6115-545-34
TM 5-6115-584-34
TM 5-6115-585-12
TM 5-6115-586-12
TM 5-6115-590-12
TM 5-6115-593-12
TM 5-6115-596-14
TM 5-6115-600-12
TM 9-6115-545-24P
TM 9-6115-624-BD
TM 9-6115-641-10
TM 9-6115-641-24
TM 9-6115-642-24
TM 9-6115-643-10
TM 9-6115-644-10
TM 9-6115-644-24
TM 9-6115-645-10
TM 9-6115-663-13&P

Perform Diagnostic Procedures on the Main Generator Assembly of a Generator Set
091-52D-3106

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures on the main generator assembly of a generator set in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the main generator assembly of a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the main generator assembly is repaired in accordance with standards.
17. Perform a final inspection to ensure the main generator assembly is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set which is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds,

two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the main generator assembly of a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provide assistance when necessary.	____	____
16. Ensured the main generator assembly is repaired to acceptable standards.	____	____
17. Performed a final inspection to ensure the main generator assembly is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 5-6115-590-12
TM 5-6115-596-14
TM 9-6115-542-24&P
TM 9-6115-642-10
TM 9-6115-643-24

Related

TM 5-6115-465-12
TM 5-6115-465-34
TM 5-6115-545-12
TM 5-6115-545-12-HR
TM 5-6115-545-34
TM 5-6115-584-12
TM 5-6115-584-34
TM 5-6115-585-12
TM 5-6115-585-34
TM 5-6115-586-12
TM 5-6115-590-34
TM 5-6115-593-12
TM 5-6115-600-12
TM 5-6115-600-34
TM 9-6115-464-12
TM 9-6115-545-24P
TM 9-6115-624-BD
TM 9-6115-639-13&P
TM 9-6115-641-10
TM 9-6115-641-24
TM 9-6115-642-24
TM 9-6115-643-10
TM 9-6115-644-10
TM 9-6115-644-24
TM 9-6115-645-10
TM 9-6115-645-24
TM 9-6115-663-13&P

Perform Diagnostic Procedures on a Battery Charging Alternator

091-52D-3107

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures on a battery charging alternator in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the battery charging alternator of a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the battery charging alternator is repaired to in accordance with standards.
17. Perform a final inspection to ensure the battery charging alternator is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the battery charging alternator of a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the battery charging alternator is repaired to in accordance with standards.	____	____
17. Performed a final inspection to ensure the battery charging alternator is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 5-6115-545-34
TM 5-6115-585-12
TM 5-6115-590-12
TM 5-6115-593-12
TM 5-6115-600-12
TM 9-6115-624-BD
TM 9-6115-642-10
TM 9-6115-643-24
TM 9-6115-644-24
TM 9-6115-645-24

Related

TM 5-6115-465-12
TM 5-6115-465-34
TM 5-6115-545-12
TM 5-6115-545-12-HR
TM 5-6115-584-12
TM 5-6115-584-34
TM 5-6115-585-34
TM 5-6115-586-12
TM 5-6115-590-34
TM 5-6115-596-14
TM 5-6115-600-34
TM 5-6115-612-12
TM 5-6115-612-34
TM 9-6115-545-24P
TM 9-6115-639-13&P
TM 9-6115-641-10
TM 9-6115-641-24
TM 9-6115-642-24
TM 9-6115-643-10
TM 9-6115-644-10
TM 9-6115-645-10
TM 9-6115-663-13&P
TM 9-6115-668-13

Perform Diagnostic Procedures on the Lubrication System

091-52D-3109

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures on the lubrication system in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the lubrication system of a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the lubrication system is repaired in accordance with standards.
17. Perform a final inspection to ensure the lubrication system is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the lubrication system of a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the lubrication system is repaired to acceptable standards.	____	____
17. Performed a final inspection to ensure the lubrication system is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 5-6115-545-12-HR
TM 5-6115-584-12
TM 5-6115-586-12
TM 5-6115-596-14
TM 9-6115-641-10
TM 9-6115-642-10
TM 9-6115-643-24
TM 9-6115-645-10
TM 9-6115-663-13&P

Related

TM 5-6115-465-12
TM 5-6115-465-34
TM 5-6115-545-12
TM 5-6115-545-34
TM 5-6115-584-34
TM 5-6115-585-12
TM 5-6115-585-34
TM 5-6115-590-12
TM 5-6115-590-34
TM 5-6115-593-12
TM 5-6115-600-12
TM 5-6115-600-34
TM 5-6115-612-12
TM 9-6115-542-24&P
TM 9-6115-545-24P
TM 9-6115-624-BD
TM 9-6115-639-13&P
TM 9-6115-641-24
TM 9-6115-642-24
TM 9-6115-643-10
TM 9-6115-644-10
TM 9-6115-644-24
TM 9-6115-645-24
TM 9-6115-668-13

Perform Diagnostic Procedures on Glow Plugs of a Diesel Engine

091-52D-3112

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Soldier must perform this task in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the glow plugs of a diesel engine on a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the glow plugs are repaired in accordance with standards.
17. Perform a final inspection to ensure the glow plugs are fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the glow plugs on a diesel engine on a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the glow plugs are repaired in accordance with standards.	____	____
17. Performed a final inspection to ensure the glow plugs are fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 5-6115-545-34
TM 5-6115-585-12
TM 5-6115-590-12
TM 5-6115-596-14
TM 9-6115-624-BD
TM 9-6115-641-24
TM 9-6115-643-10
TM 9-6115-644-24

Related

TM 5-6115-545-12
TM 5-6115-545-12-HR
TM 5-6115-584-12
TM 5-6115-584-34
TM 5-6115-585-34
TM 5-6115-586-12
TM 5-6115-590-34
TM 5-6115-593-12
TM 5-6115-600-12
TM 5-6115-600-34
TM 5-6115-612-12
TM 5-6115-612-34
TM 9-6115-542-24&P
TM 9-6115-545-24P
TM 9-6115-639-13&P
TM 9-6115-641-10
TM 9-6115-642-10
TM 9-6115-642-24
TM 9-6115-643-24
TM 9-6115-644-10
TM 9-6115-645-10
TM 9-6115-645-24
TM 9-6115-663-13&P

Perform Diagnostic Procedures on a Starter Assembly

091-52D-3114

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures on a starter assembly in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the starter assembly of a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the starter assembly is repaired in accordance with standards.
17. Perform a final inspection to ensure the starter assembly is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the starter assembly of a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the starter assembly is repaired to acceptable standards.	____	____
17. Performed a final inspection to ensure the starter assembly is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 5-6115-590-12
TM 5-6115-596-14
TM 5-6115-600-34
TM 9-6115-542-24&P
TM 9-6115-642-10
TM 9-6115-643-24
TM 9-6115-645-10

Related

TM 5-6115-545-12-HR
TM 5-6115-545-34
TM 5-6115-584-12
TM 5-6115-584-34
TM 5-6115-585-12
TM 5-6115-585-34
TM 5-6115-586-12
TM 5-6115-590-34
TM 5-6115-593-12
TM 5-6115-600-12
TM 5-6115-612-12
TM 5-6115-612-34
TM 9-6115-464-12
TM 9-6115-545-24P
TM 9-6115-624-BD
TM 9-6115-639-13&P
TM 9-6115-641-10
TM 9-6115-641-24
TM 9-6115-642-24
TM 9-6115-643-10
TM 9-6115-644-10
TM 9-6115-644-24
TM 9-6115-645-24

Perform Diagnostic Procedures on the Fuel System of an Engine

091-52D-3118

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures on the fuel system of an engine in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the fuel system of an engine on a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the fuel system is repaired in accordance with standards.
17. Perform a final inspection to ensure the fuel system is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the fuel system of a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the fuel system is repaired to acceptable standards.	____	____
17. Performed a final inspection to ensure the fuel system is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 5-6115-545-34
TM 5-6115-585-12
TM 5-6115-590-12
TM 5-6115-596-14

Related

TM 5-6115-465-34
TM 5-6115-545-12
TM 5-6115-545-12-HR
TM 5-6115-584-12
TM 5-6115-584-34
TM 5-6115-585-34
TM 5-6115-586-12
TM 5-6115-590-34
TM 5-6115-593-12
TM 5-6115-600-12
TM 5-6115-600-34
TM 5-6115-612-12
TM 5-6115-612-34
TM 5-6115-614-12
TM 5-6115-615-12
TM 5-6115-615-34
TM 5-6115-629-14&P
TM 9-6115-464-12
TM 9-6115-542-24&P
TM 9-6115-545-24P
TM 9-6115-624-BD
TM 9-6115-639-13&P
TM 9-6115-641-10
TM 9-6115-641-24
TM 9-6115-642-10
TM 9-6115-642-24
TM 9-6115-643-10
TM 9-6115-643-24
TM 9-6115-644-10
TM 9-6115-644-24
TM 9-6115-645-10

Perform Diagnostic Procedures on a Cooling System of a Diesel Engine
091-52D-3119

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures on a cooling system of a diesel engine in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the cooling system of a diesel engine on a generator set.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the cooling system is repaired in accordance with standards.
17. Perform a final inspection to ensure the cooling system is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the cooling system of a diesel on a generator set.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the cooling system is repaired to acceptable standards.	____	____
17. Performed a final inspection to ensure the cooling system is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

TM 9-6115-643-10
TM 9-6115-643-24
TM 9-6115-644-10
TM 9-6115-644-24
TM 9-6115-645-10
TM 9-6115-645-24
TM 9-6115-663-13&P
TM 9-6115-668-13

Related

TM 5-6115-545-12
TM 5-6115-545-12-HR
TM 5-6115-545-34
TM 5-6115-584-12
TM 5-6115-584-34
TM 5-6115-585-12
TM 5-6115-585-34
TM 5-6115-586-12
TM 5-6115-590-12
TM 5-6115-590-34
TM 5-6115-593-12
TM 5-6115-596-14
TM 5-6115-600-12
TM 5-6115-600-34
TM 5-6115-612-12

Perform Diagnostic Procedures on the Electrical Control on a Welding Machine
091-52D-3120

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform diagnostic procedures on the electrical control on a welding machine in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the electrical control on a welding machine.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the electrical control is repaired in accordance with standards.
17. Perform a final inspection to ensure the electrical control is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two

personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the electrical control on a welding machine.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the electrical control is repaired to acceptable standards.	____	____
17. Performed a final inspection to ensure the electrical control is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
TM 9-3431-265-14&P	
TM 9-3431-266-14&P-1	
TM 9-3431-266-14&P-2	
TM 9-3431-272-13&P	

Perform Quality Control/Quality Assurance Inspection on a Generator Set

091-52D-3121

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform quality control (QC)/quality assurance (QA) inspections on a generator set in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review work request.
2. Use applicable publications.
3. Apply diagnosing procedures.
4. Apply inspection procedures.
5. Use test, measurement, and diagnostic equipment (TMDE), if required.
6. Ensure all safety precautions are followed.
7. Determine disposition of equipment.
8. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Performance Measures	**GO**	**NO-GO**
1. Reviewed work request.	____	____
2. Used applicable publications.	____	____
3. Applied troubleshooting procedures.	____	____
4. Applied inspection procedures.	____	____
5. Used TMDE, if required.	____	____
6. Ensured all safety precautions are followed.	____	____
7. Determined disposition of equipment.	____	____
8. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
DA PAM 750-8	

Perform Quality Control/Quality Assurance Inspection on a Welding Machine
091-52D-3122

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform quality control (QC)/quality assurance (QA) inspection on a welding machine in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review work request.
2. Use applicable publications.
3. Apply diagnosing procedures.
4. Apply inspection procedures.
5. Ensure proper tools are available to perform QC/QA inspection on a welding machine.
6. Ensure all safety precautions and procedures are followed.
7. Use test, measurement, and diagnostic equipment (TMDE), if required.
8. Ensure all safety precautions are followed.
9. Determine disposition.
10. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Performance Measures	**GO**	**NO-GO**
1. Reviewed work request.	____	____
2. Used applicable publications.	____	____
3. Applied troubleshooting procedures.	____	____
4. Applied inspection procedures.	____	____
5. Ensured proper tools are available to perform QC/QA inspection on a welding machine.	____	____
6. Ensured all safety precautions and procedures are followed.	____	____
7. Used TMDE, if required.	____	____
8. Ensured all safety precautions are followed.	____	____
9. Determined disposition.	____	____
10. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required

DA PAM 750-8

Related

Perform Classification Inspection on a Generator Set

091-52D-3123

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform classification inspection on a generator set in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review the work order/ work request.
2. Use applicable publications.
3. Ensure task is within shop capability/authorization.
4. Ensure proper tools are available to perform classification inspection on a generator set.
5. Apply inspection procedures.
6. Apply diagnosing procedures.
7. Apply diagnosing procedures.
8. Use test, measurement, and diagnostic equipment (TMDE), if required.
9. Perform classification inspection on a generator set.
10. Determine disposition.
11. Ensure tools and equipment are properly maintained.
12. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Performance Measures	**GO**	**NO-GO**
1. Reviewed the work order/ work request.	____	____
2. Used applicable publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Ensured proper tools are available to perform classification inspection on a generator set.	____	____
5. Applied inspection procedures.	____	____
6. Applied diagnosing procedures.	____	____
7. Ensured all safety precautions and procedures are followed.	____	____
8. Used TMDE, if required.	____	____
9. Performed classification inspection on a generator set.	____	____
10. Determined disposition.	____	____
11. Ensured tools and equipment are properly maintained.	____	____
12. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
DA PAM 750-8	

Perform Classification Inspection on a Welding Machine

091-52D-3124

Conditions: In a contemporary operational environment, given a maintenance request or equipment inspection worksheet describing equipment malfunctions, required tools and test equipment, and with minimum supervision.

Standards: Perform classification inspection on a welding machine in accordance with listed references, ensuring that all applicable safety precautions are followed.

Performance Steps

1. Review work request.
2. Use applicable publications.
3. Apply diagnosing procedures.
4. Apply inspection procedures.
5. Use test, measurement, and diagnostic equipment (TMDE), if required.
6. Ensure all safety precautions are followed.
7. Determine disposition.
8. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Performance Measures	**GO**	**NO-GO**
1. Reviewed work request.	____	____
2. Used applicable publications.	____	____
3. Applied troubleshooting procedures.	____	____
4. Applied inspection procedures.	____	____
5. Used TMDE, if required.	____	____
6. Ensured all safety precautions are followed.	____	____
7. Determined disposition.	____	____
8. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
DA PAM 750-8	

Replace Cylinder Head

091-52D-3127

Conditions: In a contemporary operational environment, given a 60-kilowatt (kW) diesel engine-driven generator set, general mechanic's tool kit, torque wrench, replacement parts (gasket), TM 5-6115-545-34, and TM 5-6225-545-12.

Standards: Replace the cylinder head on the diesel engine, in accordance with TM 5-6115-545-34 and TM 5-6115-545-12.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace the cylinder head.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the cylinder head is repaired in accordance with standards.
17. Perform a final inspection to ensure the cylinder head in fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not

operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace cylinder head.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the cylinder head is repaired in accordance with standards.	____	____
17. Performed a final inspection to ensure the cylinder head is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
TM 5-6115-545-12	
TM 5-6115-545-12-HR	
TM 5-6115-545-34	

Perform Diagnostic Procedures on the Output Rectifier Assembly on a Welding Machine
091-52D-3128

Conditions: In a contemporary operational environment, given a welding machine, maintenance request or equipment inspection worksheet describing equipment malfunctions, schematic and wiring diagram, general mechanic's tool kit, color/grease pencils, multimeter, hearing protection, and applicable technical publications.

Standards: Perform diagnostic procedures on the output rectifier assembly on a welding machine in accordance with the applicable technical publications. When the task is completed, the welding machine must be fully mission-capable.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the output rectifier assembly on a welding machine.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the output rectifier assembly is repaired in accordance with standards.
17. Perform a final inspection to ensure the output rectifier assembly is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with

an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the output rectifier assembly on a welding machine.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the output rectifier assembly is repaired in accordance with standards.	____	____
17. Performed a final inspection to ensure the output rectifier assembly is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
TM 9-3431-265-14&P	
TM 9-3431-266-14&P-1	
TM 9-3431-266-14&P-2	
TM 9-3431-272-13&P	

Perform Diagnostic Procedures on the Range Switch Assembly on a Welding Machine
091-52D-3129

Conditions: In a contemporary operational environment, given a welding machine, maintenance request or equipment inspection worksheet describing equipment malfunctions, schematic and wiring diagram, general mechanic's tool kit, multimeter, hearing protection, and applicable technical publications.

Standards: Perform diagnostic procedures on the range switch assembly on a welding machine in accordance with the applicable technical publications. When the task is completed, the welding machine must be fully mission-capable.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the range switch assembly on a welding machine.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the range switch assembly is repaired in accordance with standards.
17. Perform a final inspection to ensure the range switch assembly is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around

engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the range switch assembly.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the range switch assembly is repaired to acceptable standards.	____	____
17. Performed a final inspection to ensure the range switch assembly is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
TM 9-3431-265-14&P	
TM 9-3431-266-14&P-1	
TM 9-3431-266-14&P-2	
TM 9-3431-272-13&P	

Perform Diagnostic Procedures on the Reactor Assembly on a Welding Machine
091-52D-3130

Conditions: In a contemporary operational environment, given a welding machine, maintenance request or equipment inspection worksheet describing equipment malfunctions, general mechanic's tool kit, multimeter, hearing protection, and applicable technical publications.

Standards: Perform diagnostic procedures on the reactor assembly on a welding machine in accordance with the applicable technical publications. When the task is completed, the welding machine must be fully mission-capable.

Performance Steps

1. Review equipment inspection and maintenance worksheet and/or work request.
2. Select necessary publications.
3. Ensure task is within shop capability/authorization.
4. Determine the required maintenance action.
5. Ensure proper tools are available to inspect, repair/replace, and test the reactor assembly on a welding machine.
6. Select necessary tools and test equipment.
7. Perform initial inspection.
8. Diagnose fault(s) and determine maintenance action to be performed.
9. Identify repair parts and requisition, if required.
10. Follow all safety precautions.
11. Assign personnel to perform task.
12. Identify faults.
13. Ensure all safety precautions and procedures are followed.
14. Determine corrective action.
15. Provide assistance when necessary.
16. Ensure the reactor assembly is repaired in accordance with standards.
17. Perform a final inspection to ensure the reactor assembly is fully mission-capable.
18. Complete The Army Maintenance Management System (TAMMS) forms, as required.

Evaluation Preparation: WARNING: The following safety precautions must be adhered to when performing the tasks listed in this manual: Remove all rings, watches, and jewelry. Do not operate generator equipment in an enclosed area unless the area is adequately ventilated. Smoking, sparks, or open flames are not allowed within 50 feet of a generator set that is undergoing fuel system maintenance. Use care when handling fan and radiator. Sharp edges can cause injury. Dry-cleaning solvent is flammable and should not be used in the vicinity of sparks or open flame. When using compressed air, wear eye shields. Do not remove a radiator cap or surge tank cap unless the engine is cool. While working on battery systems, wear rubber gloves and goggles. Before working on the exhaust system, make sure it is cool. Disconnect the negative battery cable prior to performing any electrical system maintenance or when performing repairs in the locality of electrical components. While cutting metal with an oxyacetylene torch, wear leather gloves, leather apron, and welding goggles. When working around

engines that are operating, wear hearing protection. When removing components over 75 pounds, two personnel are required. Do not smoke or use an open flame in the vicinity when filling a fuel tank. Do not operate generator set unless ground terminal stud has been connected to a suitable ground. Do not attempt to alter the position of the voltage reconnection board while the generator set is operating. Do not attempt to connect or disconnect load leads while the generator set is operating. Be careful not to inhale ether gas. Do not allow a crated generator set to swing while it is suspended.

Performance Measures	**GO**	**NO-GO**
1. Reviewed equipment inspection and maintenance worksheet and/or work request.	____	____
2. Selected necessary publications.	____	____
3. Ensured task is within shop capability/authorization.	____	____
4. Determined the required maintenance action.	____	____
5. Ensured proper tools are available to inspect, repair/replace, and test the reactor assembly.	____	____
6. Selected necessary tools and test equipment.	____	____
7. Performed initial inspection.	____	____
8. Diagnosed fault(s) and determine maintenance action to be performed.	____	____
9. Identified repair parts and requisition, if required.	____	____
10. Followed all safety precautions.	____	____
11. Assigned personnel to perform task.	____	____
12. Identified faults.	____	____
13. Ensured all safety precautions and procedures are followed.	____	____
14. Determined corrective action.	____	____
15. Provided assistance when necessary.	____	____
16. Ensured the reactor assembly is repaired in accordance with standards	____	____
17. Performed a final inspection to ensure the reactor assembly is fully mission-capable.	____	____
18. Completed TAMMS forms, as required.	____	____

Evaluation Guidance: Score the Soldier GO if all performance measures are passed. Score the Soldier NO-GO if any performance measure is failed. If the Soldier fails any performance measure, show what was done wrong and how to do it correctly.

References

Required	**Related**
TM 9-3431-265-14&P	
TM 9-3431-266-14&P-1	
TM 9-3431-266-14&P-2	
TM 9-3431-272-13&P	

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Chapter 4

Duty Position Tasks

52D—Power Generation Equipment Repairer (Power Generation Equipment Repairer), CMF 63

A. Major duties. The power generation equipment repairer supervises and performs unit, direct support and general support (DS/GS) maintenance functions, including overhaul, but not rebuild of power-generation equipment, internal combustion engines and associated equipment up through 200 kilowatts (kW) (except for turbine engine driven generators). Duties for MOS 52D at each skill level are:

(1) *MOSC 52D10.* Performs unit or DS/GS maintenance on tactical utility, precise power-generation sets, internal combustion engines, and associated items of equipment.

(2) *MOSC 52D20.* Perform duties in preceding skill level, supervises lower grade Soldiers and provides technical guidance to the Soldiers in the accomplishment of their duties. Repairs/overhauls starters, alternators, generators, fuel injectors, voltage regulators, switches, control circuits, and so on.

(3) *MOSC 52D30.* Perform duties in preceding skill levels, supervises lower grade Soldiers and provides technical guidance to the Soldiers in the accomplishment of their duties. Supervises activities of a section performing unit or DS/GS maintenance on tactical utility, precise power-generation sets, internal combustion engines, and associated equipment. Applies maintenance management and quality control including production and quality control in maintenance activities.

B. Physical demands rating and qualifications for initial award of MOS. Power generation equipment repairers must possess the following qualifications:

(1) A physical demands rating of very heavy.

(2) A physical profile of 221121.

(3) Normal color vision.

(4) A minimum score of 100 in aptitude area GM.

(5) Formal training (completion of MOS 52D course conducted under the auspices of the USA Ordnance Center and School) mandatory; or meet the civilian acquired skills criteria listed in AR 601-210.

C. Additional skill identifiers.

(1) C9—MAST and Electric Power Plant Maintenance.

(2) D4—Aviation generators/Aviation Ground Power Units.

(3) P5—Master Fitness Trainer.

(4) 2S—Battle Staff Operations (skill level 3 and above).

(5) 4A—Reclassification Training.

D. Physical requirements and standards of grade.

(1) Table 10-52D-1. Physical requirements.

(2) Table 10-52D-2. Standards of grade TOE/MTOE.

(3) Table 10-52D-3. Standards of grade TDA.

Appendix A

Hands-On Evaluation

HANDS-ON EVALUATION (DA FORM 5164-R) INSTRUCTIONS

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. Figure A-1 shows a sample of a completed DA Form 5164-R.

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.

HANDS-ON EVALUATION For use of this form, see STP 11-25S14-SM-TG; the proponent agency is TRADOC		DATE 1 November 2006	
TASK TITLE Perform Procedures to Determine Generator Selection to Meet a Particular Power Demand		TASK NUMBER 091-52D-1188	
ITEM a	PERFORMANCE STEP TITLE b	SCORE (Check One) PASS c	 FAIL d
1.	Computed the load.	[X] P	[ ] F
2.	Computed the cable size.	[ ] P	[X] F
3.	Balanced the load.	[X] P	[ ] F
4.	Selected generator set.	[X] P	[ ] F
		[ ] P	[ ] F
		[ ] P	[ ] F
		[ ] P	[ ] F
		[ ] P	[ ] F
		[ ] P	[ ] F
		[ ] P	[ ] F
		[ ] P	[ ] F
		[ ] P	[ ] F
		[ ] P	[ ] F
		[ ] P	[ ] F
EVALUATOR'S NAME SSG Powell		UNIT W Co., 244th QM Bn	
SOLDIER'S NAME PV2 Howard		STATUS [ ] GO	[X] NO GO
DA FORM 5164-R, SEP 85	EDITION OF DEC 82 IS OBSOLETE		APD V2.01

Figure A-1. Sample of a Completed DA Form 5164-R

Appendix B

Field Expedient Squad Book

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. Figure B-1 shows a sample of a completed DA Form 5164-R.

Before evaluation:

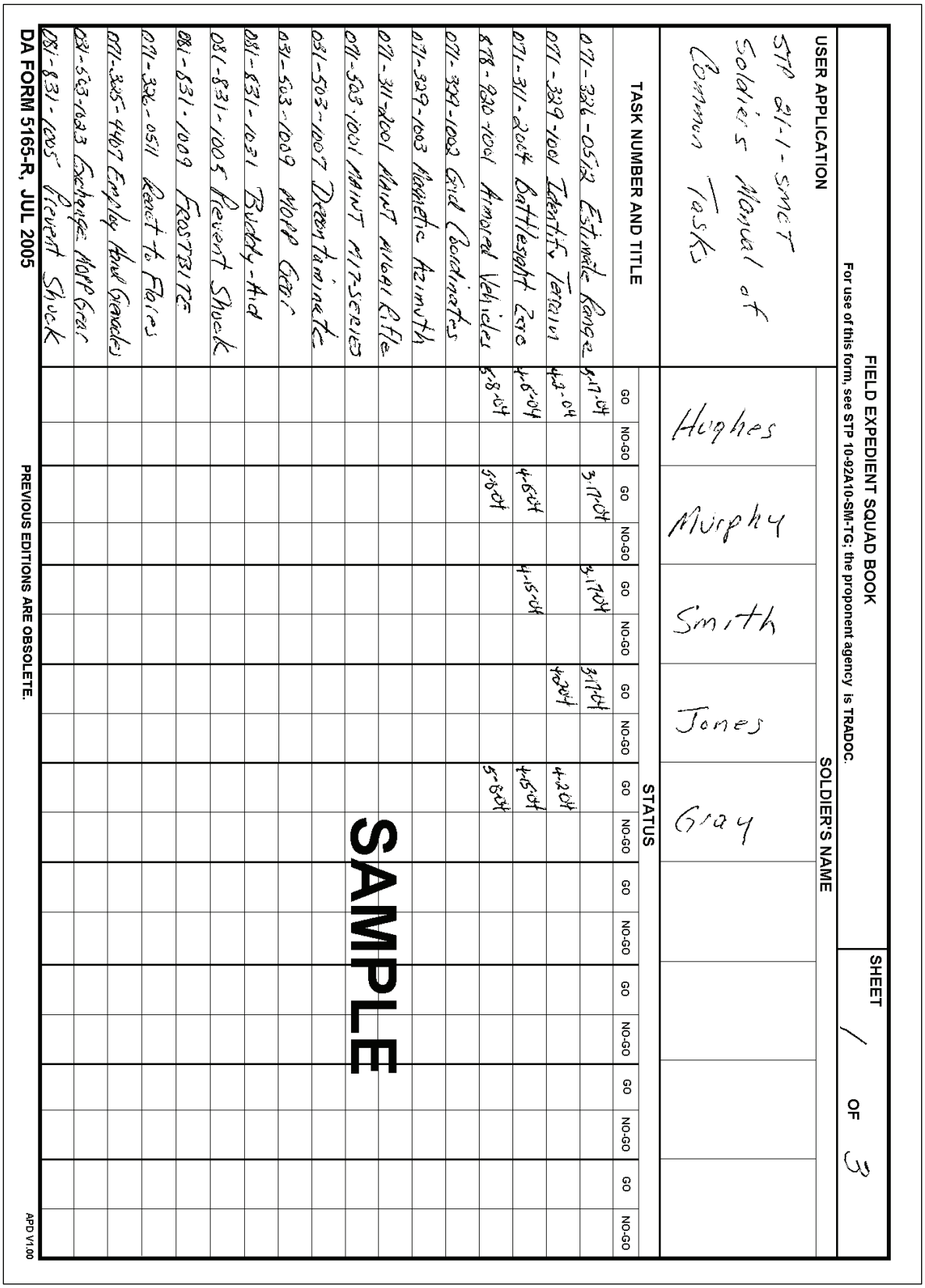
1. Obtain a blank copy of DA Form 5165-R, which you may locally reproduce on 8 ½ x 11 paper.
2. Locally reproduce the partially completed form if you are evaluating more than nine Soldiers.

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 quick 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.



FIELD EXPEDIENT SQUAD BOOK

For use of this form, see STP 10-92A10-SM-TG; the proponent agency is TRADOC.

SHEET 1 OF 3

USER APPLICATION: STP 21-1-SMCT Soldier's Manual of Common Tasks

SOLDIER'S NAME: Hughes | Murphy | Smith | Jones | Gray

TASK NUMBER AND TITLE	STATUS																	
	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO	GO	NO-GO
071-326-0512 Estimate Range	5-17-04		5-17-04		5-17-04		5-17-04		5-17-04									
071-329-1001 Identify Terrain	4-23-04						4-23-04											
071-311-2004 Day/Night Zero	4-6-04		4-6-04		4-15-04				4-2-04									
178-930-1001 Armored Vehicles	5-8-04		5-8-04						5-8-04									
071-322-1002 Grid Coordinates																		
071-329-1003 Magnetic Azimuth																		
071-311-2001 Maint Night Rifle																		
071-503-1001 Maint M17-Series																		
051-503-1007 Determine TC																		
031-503-1059 MOPP Gear																		
081-831-1031 Buddy-Aid																		
081-831-1005 Prevent Shock																		
081-831-1009 Frostbite																		
071-326-0511 React to Flares																		
071-325-4407 Employ Hand Grenades																		
031-563-1013 Exchange MOPP Gear																		
081-831-1005 Prevent Shock																		

SAMPLE

DA FORM 5165-R, JUL 2005 PREVIOUS EDITIONS ARE OBSOLETE. APD V1.00

Figure B-1. Sample of a Completed DA Form 5165-R

Glossary

Section I
Acronyms & Abbreviations

AC	alternating current
ACCP	Army Correspondence Course Program
AIPD	Army Institute for Professional Development
AISM	Automated Information Systems Manual
AIT	Advanced Individual Training
AMSS	Army Materiel Status System
AN	Annually
ANCOC	Advanced Noncommissioned Officer Course
AOAP	Army Oil Analysis Program
APD	Army Publishing Directorate
AR	Army regulation
ARTEP	Army Training and Evaluation Program
ASI	additional skill identifier
BA	Biannually
BNCOC	Basic Noncommissioned Officer Course
BTC	Basic Technical Course
BW	Biweekly
CLT	common logistic task
CMF	career management field
CTT	common task test
DA	Department of the Army
DA PAM	Department of the Army pamphlet
D.C.	District of Columbia
DC	direct current
DS	direct support

EIC	equipment identification code
F	Fahrenheit
FM	Field Manual
FMC	fully mission capable
Freq	frequency
GS	general support
HQ	Headquarters
kW	kilowatt(s)
LO	lubrication order
MACOM	major Army command
MCSR	Materiel Condition Status Report
METL	mission-essential task list
MO	Monthly
MOS	Military Occupational Specialty
MOSC	Military Occupational Specialty Code
MSDS	Material Safety Data Sheet
MTOE	modified table(s) of equipment
NA	not applicable
NCO	noncommissioned officer
NMC	non-mission capable
No.	number
OPORD	operation order
PAM	pamphlet
PL	preservative lubricant
PLL	prescribed load list
PMCS	preventive maintenance checks and services

QA	quality assurance
QC	quality control
QT	Quarterly
SA	Semiannually
SAMS	Standard Army Maintenance System
SAMS-1	Standard Army Maintenance System-Level 1
SD	special duty
SL	Skill Level
SM	Soldier's Manual
SM/TG	Soldier's Manual/Trainer's Guide
SMCT	Soldier's Manual of Common Tasks
SOP	standing operating procedure
STP	Soldier Training Publication
Sust	Sustainment
TAMMS	The Army Maintenance Management System
TB	technical bulletin
TDA	table(s) of daily allowances
TG	Trainer's Guide
TM	technical manual
TMDE	test, measurement, and diagnostic equipment
Tng	Training
TOE	table(s) of equipment
TRADOC	Training and Doctrine Command
UIC	unit identification code
ULLS	Unit Level Logistics System
ULLS-G	Unit Level Logistics System-Ground
US	United States
USA	United States Army

V	volt(s)
WK	Weekly

Section II
Terms

CTT (common task test)
A hands-on test used to evaluate the Soldier's proficiency on common tasks.

Field Manual (FM)
A DA publication that contains doctrine that prescribes how the Army and its organizations function on the battlefield in terms of missions, organizations, personnel, and equipment. The level of detail should facilitate an understanding of "shat" and "how" for commanders and staffs to execute their missions and tasks. The FM may also be used to publish selected alliance doctrinal publications that are not readily integrated into other doctrinal literature.

GO/NO-GO
A pass-fail grade given when a Soldier is evaluated on how well he or she can perform a task. The Soldier is either given a pass or fail, that is, GO or NO-GO.

MOS (military occupational specialty)
A term used to identify the skills of a group of related jobs and duty positions.

TG (trainer's guide)
A document that provides the information needed by your commander, training manager, and trainer to plan, conduct, and evaluate training in your MOS.

References

Required Publications

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

Army Regulations

AR 25-400-2	*The Army Records Information Management System (ARIMS)*. 15 November 2004.
AR 190-13	*The Army Physical Security Program*. 30 September 1993.
AR 190-51	*Security of Unclassified Army Property (Sensitive and Nonsensitive)*. 30 September 1993.
AR 220-1	*Unit Status Reporting*. 19 December 2006.
AR 385-10	*The Army Safety Program*. 23 August 2007.
AR 600-55	*The Army Driver and Operator Standardization Program (Selection, Training, Testing, and Licensing)*. 18 June 2007.
AR 601-210	*Active and Reserve Components Enlistment Program*. 7 June 2007.
AR 700-4	*Logistics Assistance*. 17 March 2006.
AR 700-138	*Army Logistics Readiness and Sustainability*. 26 February 2004.
AR 710-2	*Supply Policy Below the National Level*. 8 July 2005.
AR 725-50	*Requisition, Receipt, and Issue System*. 15 November 1995.
AR 735-5	*Policies and Procedures for Property Accountability*. 28 February 2005.
AR 750-1	*Army Materiel Maintenance Policy*. 10 April 2007.
AR 750-43	*Army Test, Measurement, and Diagnostic Equipment*. 3 November 2006.

Department of Army Forms

DA Forms are available on the APD Web site at *www.apd.army.mil*.

DA FORM 17	*Requisition for Publications and Blank Forms*.
DA FORM 17-1	*Requisition for Publications and Blank Forms (Continuation Sheet)*.
DA FORM 2062	*Hand Receipt/Annex Number*.
DA FORM 2404	*Equipment Inspection and Maintenance Worksheet*.
DA FORM 2407	*Maintenance Request*.
DA FORM 4569-1-R	*Security Assistance Publication Requisition Code Sheet (LRA)*.
DA FORM 5164-R	*Hands-On Evaluation (LRA)*.
DA FORM 5165-R	*Field Expedient Squad Book*.
DA FORM 5988-E	*Equipment Inspection Maintenance Worksheet (EGA)*.

Department of Army Pamphlets

DA PAM 25-30	*Consolidated Index of Army Publications and Blank Forms*. 1 January 2007.
DA PAM 25-33	*User's Guide for Army Publications and Forms*. 15 September 1996.
DA PAM 25-40	*Army Publishing: Action Officers Guide*. 7 November 2006.
DA PAM 710-2-1	*Using Unit Supply System (Manual Procedures)*. 31 December 1997.
DA PAM 710-2-2	*Supply Support Activity Supply System: Manual Procedures*. 30 September 1998.
DA PAM 750-1	*Commanders' Maintenance Handbook*. 2 February 2007.
DA PAM 750-3	*Soldiers' Guide for Field Maintenance Operations*. 29 September 2006.

DA PAM 750-8 *The Army Maintenance Management System (TAMMS) Users Manual*. 22 August 2005.

Field Manuals

FM 1-02 *Operational Terms and Graphics*. 21 September 2004.
FM 4-30.3 *Maintenance Operations and Procedures*. 28 July 2004.
FM 5-170 *Engineer Reconnaissance*. 5 May 1998.
FM 5-424 *Theater of Operations Electrical Systems*. 25 June 1997.
FM 7-0 *Training the Force*. 22 October 2002.
FM 7-1 *Battle Focused Training*. 15 September 2003.
FM 25-4 *How to Conduct Training Exercises*. 10 September 1984.
FM 25-5 *Training for Mobilization and War*. 25 January 1985.

Other Product Types

AISM 18-L21-AHN-BUR-UM *Standard Army Maintenance System Level 1 (SAMS-1) End User Manual*.
AISM 18-L26-AHO-BUR-EM *Standard Army Maintenance System Level 2 (SAMS-2) End User Manual*.

Soldier Training Publications

STP 21-1-SMCT *Soldier's Manual of Common Tasks Skill Level 1*. 2 October 2006.
STP 21-24-SMCT *Soldier's Manual of Common Tasks (SMCT) Warrior Leader Skill Levels 2-4*. 2 October 2006.

Technical Bulletins

TB 43-0211 *Army Oil Analysis Program (AOAP) Guide for Leaders and Users*. 1 December 2004.
TB 43-180 *Interactive Electronic Technical Manual (IETM) for Calibration and Repair Requirements for the Maintenance of Army Materiel*. 7 August 2006.

Technical Manuals

TM 5-6115-271-14 *Operator's, Organizational, Direct Support and General Support Maintenance Manual for Generator Set, Gasoline Engine Driven, Skid Mtd, Tubular Frame, 3 kW, 3 Phase, AC, 120/208 and 120/240 V, 28 V DC (Less Engine) DOD Model MEP-016A, 60 HZ (NSN 6115-00-017-8237), Model MEP-016C 60 HZ (6115-00-143-3311) Model MEP-021A 400 HZ (6115-00-017-8238) Model MEP-021C 400 HZ (6115-01-175-7321) Model MEP-026A DC HZ (6115-00-017-8239) Model MEP-026C 28 V DC (6115-01-175-7320)*. 3 August 1976.
TM 5-6115-423-15 *Operator, Organizational, Direct and General Support and Depot Maintenance Manual for Load Bank, 0.30 kW, AC, Portable, Skid Mtd (SUN Electric Corp., Model GPT-3D-1) (NSN 6115-00-964-1091) and (SUN Electric Corp., Model GPT-3D) (6115-00-903-8174)*. 10 August 1967.
TM 5-6115-440-10 *Operator's Maintenance Manual: Generator Set, 7.5 kW, 28 V, DC, GED, Air Cooled, 2-Wheel Mtd, Pneumatic Tires (John R. Hollingsworth Model JHGV7.5A) (NSN 6115-00-074-6396)*. 2 February 1971.
TM 5-6115-440-20 *Organizational Maintenance Manual for Generator Set, 7.5 kW, 28 V DC, GED, Air Cooled, 2 Wheel Mtd, Pneumatic Tires (John R. Hollingsworth Model JHGV7.5A) (NSN 6115-00-074-6396)*. 2 February 1971.

TM 5-6115-465-12	*Operator's and Organizational Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd, 30 kW, 3 Phase, 4 Wire, 120/208 and 240/416 V (DOD Model MEP-005A), Utility Class, 50/60 HZ (NSN 6115-00-118-1240), (Model MEP-104A), Precise Class, 50/60 HZ (6115-00-118-1247), (Model MEP-114A), Precise Class, 400 HZ (6115-00-118-1248) Including Auxiliary Equipment (DOD Model MEP-005AWF) Winterization Kit, Fuel Burning (6115-00-463-9083), (Model MEP-005AWE), Winterization Kit, Electric (6115-00-463-9085), (Model MEP-005ALM), Load Bank Kit (6115-00-463-9088) and (Model MEP-005AWM), Wheel Mounting Kit (6115-00-463-9094)*. 31 January 1975.
TM 5-6115-465-34	*Intermediate (Field) (Direct and General Support) and Depot Level Maintenance Manual: Generator Set, Diesel Engine Driven, Tactical Skid Mtd, 30 kW, 3 Phase, 4 Wire, 120/208 and 240/416 V (DOD Model MEP-005A), Utility, 50/60 HZ (NSN 6115-00-118-1240), (Model MEP-104A), Precise, 50/60 HZ (6115-00-118-1247), (Model MEP-114A) Precise, 50/60 HZ (6115-00-118-1248) Including Optional Kits (Model MEP-005AWF) Winterization Kit, Fuel Burning (6115-00-463-9083), (Model MEP-005AWE) Winterization Kit, Electric (6115-00-463-9085) (Model MEP-005ALM) Load Bank Kit (6115-00-463-9088) (Model MEP-005AWM) Wheel Mounting Kit (6115-00-463-9094) and (Model MEP-005AAS) Acoustic Suppression Kit (Army Only) (6115-01-234-6545)*. 31 January 1975.
TM 5-6115-545-12	*Operator's and Organizational Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd., 60 kW, 3 Phase, 4 Wire, 120/208 and 240/416 Volts, DOD Model MEP-006A, Utility Class, 50/60 HZ (NSN 6115-00-118-1243) DOD Model MEP-105A, Precise Class, 50/60 HZ (6115-00-118-1252) DOD Model MEP-115A, Precise Class, 400 HZ (6115-00-118-1253) Including Optional Kits, DOD Model MEP006AWF, Winterization Kit, Fuel Burning (6115-00-407-8314) DOD Model MEP006AWE, Winterization Kit, Electric (6115-00-455-7693) DOD Model MEP006ALM, Load Bank Kit (6115-00-407-8322) DOD Model MEP006AWM, Wheel Mounting Kit (6115-00-463-9092)*. 10 June 1973.
TM 5-6115-545-12-HR	*Hand Receipt Manual Covering Components of End Item (COEI), Basic Issue Items (BII), and Additional Authorization List (AAL) for Generator Set, Diesel Engine Driven, Tactical Skid Mtd, 60 kW, 3 Phase, 4 Wire, 120/208 and 240/416 V (DOD Models MEP-006A) Utility Class, 50/60 HZ (NSN 6115-00-118-1243), (Model MEP-105A) Precise Class, 50/60 HZ (6115-00-118-1252) and (Model MEP-115A) Precise Class, 400 HZ (6115-00-118-1253)*. 8 February 1980.
TM 5-6115-545-34	*Intermediate (Field) (Direct and General Support) and Depot Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd., 60 kW, 3 Phase, 4 Wire, 120/208 and 240/416 Volts DOD Models MEP-006A, Utility Class, 50/60 HZ (FSN 6115-118-1243), MEP-105A, Precise Class, 50/60 HZ (6115-118-1252) and MEP-115A, Precise Class, 400 HZ (6115-118-1253)*. 10 June 1973.
TM 5-6115-584-12	*Operator and Organizational Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd, 5 kW, 1 Phase, 2 Wire; 1 Phase, 3 Wire; 3 Phase, 4 Wire, 120, 120/240 and 120/208 V (DOD Model MEP-002A) Utility Class, 60 HZ (NSN 6115-00-465-1044)*. 22 July 1977.
TM 5-6115-584-34	*Intermediate (Field) (Direct and General Support) and Depot Level Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mounted, 5 kW, 1 Phase, 2 Wire, 1 Phase, 3 Wire, 3 Phase, 4 Wire,*

120, 120/240 and 120/208 V (DOD Model MEP-002A), Utility Class, 60 HZ (NSN 6115-00-465-1044). 22 July 1977.

TM 5-6115-585-12 *Operator and Organizational Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd, 10 kW, 1 Phase, 2 Wire; 1 Phase, 3 Wire And 3 Phase, 4 Wire; 120, 120/240 and 120/208 V (DOD Model MEP-003A) Utility Class, 60 HZ (NSN 6115-00-465-1030) and (Model MEP-112A), Utility Class, 400 HZ (6115-00-465-1027)*. 25 July 1977.

TM 5-6115-585-34 *Intermediate (Field) (Direct and General Support) and Depot Level Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mounted, 10 kW, 1 Phase, 2 Wire, 1 Phase, 3 Wire, 3 Phase, 4 Wire, 120, 120/240 and 120/208 Volts (DOD Model MEP-003A), Utility Class, 60 HZ (NSN 6115-00-465-1030)*. 25 July 1977.

TM 5-6115-586-12 *Operator's and Organizational Maintenance Manual: Power Plant, Utility (MUST) Gas Turbine Engine Driven (Libby Welding Co., Model LPU-71) (Non-Winterized) (NSN 6115-00-937-0929) and (Libby Welding Co., Model LPU-71W) (Winterized) (6115-00-134-0825)*. 5 June 1972

TM 5-6115-590-12 *Operator's and Organizational Maintenance Manual for Power Plant, Utility, (MUST), Gas Turbine Engine Driven (Airesearch Co., Model PPU85-5) (Libby Welding Co., Model LPU-71), (Amertech Corp., Model APP-1) and (Hollingsworth Co., Model JHTWX 10/96) (NSN 6115-00-937-0929) (Nonwinterized) and (6115-00-134-0825) (Winterized)*. 29 March 1977.

TM 5-6115-590-34 *Direct Support and General Support Maintenance Manual for Power Plant, Utility (MUST), Gas Turbine Engine Driven (Airesearch Co., Model PPU85-5), (Libby Welding Co., Model LPU-71), (Amertech Corp., Model APP-1) and (Hollingsworth Co., Model JHTWX10/96) (NSN 6115-00-937-0929) (Non-Winterized) and (6115-00-134-0825) (Winterized)*. 12 May 1977.

TM 5-6115-593-12 *Operator and Organizational Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd, 500 kW, 3 Phase, 4 Wire; 120/208 and 240/416 Volts DOD Model MEP-029A; Class Utility, Hertz 50/60; (NSN 6115-01-030-6085); MEP-029B; Utility; 50/60; (6115-01-318-6302) Including Optional Kits DOD Models MEP-029AHK; Nomenclature Housing Kit; (6115-01-070-7550) MEP-029ACM; Automatic Control Module; (6115-01-275-7912); MEP-029ARC, Remote Control Module, (6110-01-070-7553); MEP-029ACC, Remote Control Cable (6110-01-087-4127)*. 17 July 1990.

TM 5-6115-596-14 *Operator's, Organizational, Direct Support and General Support Maintenance Manual for Generator Set, Gasoline Engine Driven, 4.2 kW, 150 Amp, 28 V, DC Model DC 4.2-ORD/28 (NSN 6115-00-857-1397) and Direct Support Maintenance, Starter Generator 12345177 (19207)*. 20 June 1980.

TM 5-6115-600-12 *Operator's and Organizational Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd, 100 kW, 3 Phase, 4 Wire, 120/208 and 240/416 V (DOD Model MEP-007B) Class Utility, 50/60 HZ (NSN 6115-01-036-6374) Including Optional Kits, DOD Model MEP007BWF Winterization Kit, Fuel Burning (6115-01-131-7228) MEP007BWE Winterization Kit, Electric (6115-01-125-9368) Wheel Kit Assembly (6115-01-135-6165)*. 1 February 1982.

TM 5-6115-600-34 *Intermediate (Field) (Direct and General Support) and Depot Level Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd 100 kW, 3 Phase, 4 Wire, 120/208 and 240/416 V (DOD Model MEP-007B), Class Utility, 50/60 HZ (NSN 6115-01-036-6374) Including*

	Optional Kits, DOD Model MEP007BWF, Winterization Kit, Fuel Burning and NEO007BWE, Winterization Kit, Electric. 1 February 1982.
TM 5-6115-612-12	*Operator's and Unit Maintenance Manual Gas Turbine Engine Driven Aviation Generator Set, (NSN 6115-01-161-3992)*. 19 November 1987.
TM 5-6115-612-34	*Intermediate (Field), (Direct and General Support) and Depot Maintenance Manual for Generator Set, Aviation, Gas Turbine Engine Driven, Integral Trailer Mounted 10 kW 28 Volts DOD Model MEP 362A, Precise, DC, (NSN 6115-01-161-3992)*. 25 July 1988.
TM 5-6115-614-12	*Operator and Organizational Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd 200 kW, 3 Phase, 4 Wire, 120/208 and 240/416 Volts, DOD Model MEP009B, Hertz 50/60 (NSN 6115-01-021-4096) Including Optional Kits DOD Model MEP009BWF Winterization Kit, Fuel Burning; MEP009BWF Winterization Kit, Electric; MEP009BWK Wheel Kit (2350-01-221-8306)*. 15 July 1986.
TM 5-6115-615-12	*Operator and Organizational Maintenance Manual: Generator Set, Diesel Engine Driven, Tactical, Skid Mounted 3 kW, 3 Phase 120/208 and Single Phase 120/240 Volts AC and 28 Volts DC DOD Model MEP-016B; Class Utility; Mode 60 HZ; (NSN 6115-01-150-4140); DOD Model MEP-021B; Class Utility; Mode 400 HZ; (6115-01-151-8126); DOD Model MEP-026B; Class Utility; Mode 28VDC; (6115-01-150-0367)*. 31 July 1987.
TM 5-6115-615-34	*Intermediate (Field) (Direct and General Support) Maintenance Manual; Generator Set Diesel Engine Driven, Tactical, Skid Mounted, 3 kW, 3 Phase 120/208 and Single Phase 120/240 Volts AC and 28 Volts DC; DOD Model MEP-016B; Class Utility; Mode 60HZ (NSN 6115-01-150-4140); DOD Model MEP-021B; Class Utility; Mode 400 HZ (6115-01-151-8126); DOD Model MEP-026B; Class Utility; Mode 28VDC; (6115-01-150-0367)*. 31 July 1987.
TM 5-6115-629-14&P	*Operator, Unit, Intermediate Direct Support and General Support Maintenance Manual (Including Repair Parts and Special Tools Lists) for Power Plant AN/AMJQ-12A (NSN 6115-00-257-1602) (2) MEP-006A, 60 kW, 60HZ, Generator Sets (2) M200A1 2-Wheel, 4-Tire, Modified Trailers*. 17 June 1988
TM 9-2815-252-24	*Unit, Direct Support and General Support Maintenance Instructions for Diesel Engine Model DN2M 2 Cylinder 0.9 Liter (NSN 2815-01-350-2205)*. 1 September 1993.
TM 9-2815-253-24	*Unit, Direct Support and General Support Maintenance Instructions for Diesel Engine Model DN4M 4 Cylinder 1.2 Liter (NSN 2815-01-350-2206)*. 15 September 1993.
TM 9-2815-253-24P	*Unit, Direct Support and General Support Maintenance Repair Parts and Special Tools List for Diesel Engine (NSN 2815-01-350-2206) Model DN4M-1 Four-Cylinder, Four Cycle, Fuel Injected*. 30 October 1996.
TM 9-2815-254-24	*Unit, Direct Support and General Support Maintenance Instructions for Diesel Engine Model C-240PW-28 4 Cylinder 2.4 Liter (NSN 2815-01-350-2207)*. 1 September 1993
TM 9-2815-256-24	*Unit, Direct Support and General Support Maintenance Instructions for Diesel Engine Model 6059T 6 Cylinder 5.9 Liter (NSN 2815-01-350-2209)*. 15 September 1993.
TM 9-3431-265-14&P	*Operator's, Organizational, Direct Support and General Support Maintenance Manual Including Repair Parts List for Welding Shop, Trailer Mounted Model 491996 (NSN 3431-01-090-1231)*. 8 February 1988.

TM 9-3431-266-14&P-1	*Operator's, Organizational, Direct Support, and General Support Maintenance Manual Including Repair Parts and Special Tools List for Welding Machine Model DCC-353-P (NSN 3431-01-079-8439)*. 5 August 1988.
TM 9-3431-266-14&P-2	*Operator's Organizational, Direct Support and General Support Maintenance Manual Including Repair Parts and Special Tools List for Welding Machine Model DCC-353-P (NSN 3431-01-079-8439)*. 5 August 1988.
TM 9-3431-272-13&P	*Operator's, Unit, and Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) for Welding Shop, Trailer Mounted Model 11838792 (NSN 3431-01-341-6232)*. 26 October 1994
TM 9-6115-464-12	*Operator and Unit Maintenance Manual for Generator Set, Diesel Engine Driven, Tactical Skid Mtd, 15 kW, 3 Phase, 4 Wire, 120/208 and 240/416 Volts DOD Model MED-004A Utility Class 50/60 Hertz (NSN 6115-00-118-1241) DOD Model MEP-103A Precise Class 50/60 Hertz (6115-00-118-1245) DOD Model MEP-113A Precise Class 400 Hertz (6115-00-118-1244) Including Optional Kits DOD Model MEP-005-AWF Winterization Kit, Fuel Burning (6115-00-463-9083) DOD Model MEP-005-AWE Winterization Kit, Electric (6115-00-463-9085) DOD Model MEP-004-ALM Load Bank Kit (6115-00-291-9201) DOD Model MEP-005-AWM Wheel Mounting Kit (6115-00-463-9094) Applications Kit (6115-01-096-9015) DOD Model MEP-015-ASK Acoustic Suppression Kit (6115-01-233-8274)*. 30 July 1993.
TM 9-6115-542-24&P	*Unit, Direct Support, and General Support Maintenance Manual Including Repair Parts and Special Tools List (RPSTL) for External Auxiliary Power Unit (EAPU) (NSN 6115-01-369-7465)*. 17 May 1999.
TM 9-6115-545-24P	*Unit, Direct and General Support, and Depot Maintenance Repair Parts and Special Tools List for Generator Set, Diesel Engine Driven, Tactical, Skid Mtd., 60 kW, 3 Phase, 4 Wire, 120/208 and 240/416 Volts, DOD Models MEP-006A, Utility Class, 50/60 H/Z, (NSN 6115-00-118-1243), MEP-105A, Precise Class, 50/60 H/Z, (6115-00-118-1252), MEP-115A, Precise Class, 400 H/Z (6115-00-118-1253); Including Optional Kits, DOD Models MEP-006AWF, Winterization Fuel Burning, (6115-00-407-8314), MEP-006AWE, Winterization Kit, Electric, (6115-00-455-7693), MEP-006ALM, Load Bank Kit, (6115-00-407-8322), and MEP-006AWM, Wheel Mounting Kit, (6115-00-463-9092)*. 28 June 1995.
TM 9-6115-624-BD	*Battlefield Damage Assessment and Repair for Generators*. 28 September 1990.
TM 9-6115-639-13&P	*Operator, Unit, and Direct Support Maintenance Manual (Including Repair Parts and Special Tools List) 3 kW Tactical Quiet Generator Set MEP-831A (60HZ) (NSN: 6115-01-285-3012) (EIC: VG6) MEP-832A (400 HZ) (NSN: 6115-01-287-2431) (EIC: VN7)*. 15 August 2005.
TM 9-6115-641-10	*Operator's Manual for Generator Set Skid Mounted, Tactical Quiet 5 kW, 60 and 400 HZ MEP-802A (60 HZ) (NSN 6115-01-274-7387) MEP-812A (400 HZ) (6115-01-274-7391)*. 30 December 1992.
TM 9-6115-641-24	*Unit, Direct Support And General Support Maintenance Manual for Generator Set, Skid Mounted, Tactical Quiet 5 kW, 60 and 400 HZ MEP-802A (60 HZ) (NSN 6115-01-274-7387) MEP-812A (400 HZ) (6115-01-274-7391)*. 1 September 1993.
TM 9-6115-642-10	*Operator's Manual For Generator Set Skid Mounted, Tactical Quiet 10 kW, 60 and 400 HZ MEP-803A (60 HZ) (NSN 6115-01-275-5061) MEP-813A (400 HZ) (6115-01-274-7392)*. 30 December 1992.

TM 9-6115-642-24	*Unit, Direct Support and General Support Maintenance Manual for Generator Set, Skid Mounted, Tactical Quiet 10 kW, 60 and 400 HZ MEP-803A (60 HZ) (NSN 6115-01-275-5061) MEP-813A (400 HZ) (6115-01-274-7392)*. 1 September 1993.
TM 9-6115-643-10	*Operator's Manual for Generator Set, Skid Mounted, Tactical Quiet 15 kW, 50/60 and 400 HZ MEP-804A (50/60 HZ) (NSN 6115-01-274-7388) MEP-814A (400 HZ) (6115-01-274-7393)*. 30 December 1992.
TM 9-6115-643-24	*Unit, Direct Support and General Support Maintenance Manual for Generator Set, Skid Mounted, Tactical Quiet 15 kW, 50/60 and 400 HZ MEP-804A (50/60 HZ) (NSN 6115-01-274-7388) MEP-814A (400 HZ) (6115-01-274-7393)*. 1 September 1993.
TM 9-6115-644-10	*Operator's Manual for Generator Set, Skid Mounted, Tactical Quiet 30 kW, 50/60 and 400 HZ MEP-805A (50/60 HZ), (NSN 6115-01-274-7389) MEP-815A (400 HZ), (6115-01-274-7394)*. 30 July 1993
TM 9-6115-644-24	*Unit, Direct Support and General Support Maintenance Manual for Generator Set, Skid Mounted, Tactical Quiet 30 kW, 50/60 and 400 HZ MEP-805A (50/60 HZ) (NSN 6115-01-274-7389) MEP-815A (400 HZ) (6115-01-274-7394)*. 30 April 1995.
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8 October 2007

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