

**Summary Report for Individual Task
052-204-1210
Sag Single Phase and Three Phase Overhead Conductors
Status: Approved**

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

DESTRUCTION NOTICE: None

Condition: As a Power Line Distribution Specialist in a tactical or nontactical environment when single phase or three phase overhead conductors need to be sagged, you are applicable climbing and rigging equipment, a sagging chart, a dynamometer and conductor tie material, the Lineman's and Cableman's Handbook (LCH), safety standing operating procedures (SOPs), applicable personal protective equipment (PPE), and DA Form 2702 (Bill of Materials). This task should not be trained in MOPP.

Standard: Sagg single phase or three phase overhead conductors by ensuring that conductors are sagged according to the sagging chart and based on surrounding factors. Once conductors are sagged, ensure that they are secured to support devices.

Special Condition: None

Safety Level: Low

MOPP: Never

Task Statements

Cue: None

DANGER

1. THIS TASK SHOULD ONLY BE PERFORMED BY QUALIFIED PERSONNEL WHO ARE KNOWLEDGEABLE IN THE INSTALLATION, OPERATION, AND MAINTENANCE OF MEDIUM VOLTAGE ELECTRICAL POWER DISTRIBUTION EQUIPMENT AND ITS ASSOCIATED HAZARDS. FAILURE TO COMPLY MAY CAUSE PERMANENT INJURY OR DEATH.
2. A VOLTAGE DETECTOR SHOULD BE USED TO ENSURE THAT THE CABLES ARE NOT ENERGIZED. MATERIAL (SUCH AS A LEAD SHEATH THAT ACTS AS A SHIELD) MUST NOT BE BETWEEN THE DETECTOR AND THE CONDUCTORS OF THE CIRCUIT BEING TESTED. FAILURE TO COMPLY MAY CAUSE PERMANENT INJURY OR DEATH.
3. ALL SYSTEMS ARE CONSIDERED ENERGIZED UNTIL THE ENERGY SOURCE IS REMOVED, LOCKED OUT (WHEN POSSIBLE), AND TAGGED OUT. WHEN ENERGY-ISOLATING DEVICES CANNOT BE PHYSICALLY LOCKED OUT, USE TAGOUT PROCEDURES. FAILURE TO COMPLY MAY CAUSE PERMANENT INJURY OR DEATH.
4. ALWAYS WEAR THE PERSONAL PROTECTIVE EQUIPMENT REQUIRED FOR INSPECTIONS IN HAZARDOUS AREAS. FAILURE TO COMPLY MAY CAUSE IMMEDIATE DEATH OR PERMANENT INJURY.

WARNING

WHEN POSSIBLE, INDIVIDUALS NOT ASCENDING THE POLE MUST MAINTAIN A 10-FOOT RADIUS FROM THE POLE BASE TO ENSURE THAT THEY ARE NOT STRUCK BY DROPPED OBJECTS. FAILURE TO COMPLY MAY CAUSE IMMEDIATE PERSONAL INJURY.

USE PROPER CLIMBING TECHNIQUES TO AVOID SLIPPING OR FALLING, WEAR LONG SLEEVES AND GLOVES TO AVOID SPLINTERS, AND WEAR PROTECTIVE EYEWEAR WHEN USING METAL TO STRIKE METAL. FAILURE TO COMPLY MAY CAUSE IMMEDIATE PERSONAL INJURY.

CAUTION

None

Remarks: All required Prime Power specific references and technical manuals will be provided by the local Prime Power Command.

Notes: None

Performance Steps

1. Review danger, warning, and caution notices before proceeding.
2. Review the manufacturer's literature, electrical construction prints, and wiring diagrams.
3. Ensure that PPE is correctly tested and fully mission-capable.
4. Inspect tools and climbing and rigging equipment for serviceability.
5. Participate in a safety briefing that highlights safety precautions and the concept of the operation.
6. Inspect conductors to ensure that they are sagged according to the sagging chart and based on surrounding factors.
 - a. Ensure that conductors are sagged according to span length.
 - b. Ensure that conductors are sagged according to material.
 - c. Ensure that conductors are sagged according to size.
 - d. Ensure that conductors are sagged according to geographical location.
 - e. Ensure that conductors are sagged according to climate.
7. Ensure that conductors are sagged visually or with a dynamometer.
8. Ensure that conductors are secured in place after being sagged.
9. Ensure that PPE, climbing and rigging equipment, and tools are correctly cleaned and stored.

(Asterisks indicates a leader performance step.)

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

Evaluation Preparation: Provide the Soldier with the items listed in the conditions. Give the Soldier a safety briefing before starting the test, and ensure that all safety precautions are followed. Prepare the testing area and equipment in advance to ensure that task standards can be met.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. Reviewed danger, warning, and caution notices before proceeding.			
2. Reviewed the manufacturer's literature, electrical construction prints, and wiring diagrams.			
3. Ensured that PPE was correctly tested and fully mission-capable.			
4. Inspected tools and climbing and rigging equipment for serviceability.			
5. Participated in a safety briefing that highlighted safety precautions and the concept of the operation.			
6. Inspected conductors to ensure that they were sagged according to the sagging chart and based on surrounding factors.			
7. Ensured that conductors were sagged visually or with a dynamometer.			
8. Ensured that conductors were secured in place after being sagged.			
9. Ensured that PPE, climbing and rigging equipment, and tools were correctly cleaned and stored.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary
	AR 385-10	The Army Safety Program (*RAR 004, 10/04/2011)	No	No
	DA FORM 2702	Bill of Materials	Yes	No
	EM 385-1-1	Safety and Health Requirements.	No	No
	ER 385-1-31	Safety & Occupational Health. The Control of Hazardous Energy (Safe Clearance).	No	No
	LCH	The Lineman's and Cableman's Handbook, 11th Edition, McGraw-Hill. 2007	Yes	No
	TM 3-34.45	ENGINEER PRIME POWER OPERATIONS	No	No
	TM 5-682	Facilities Engineering: Electrical Facilities Safety.	No	No
	TM 5-684	Facilities Engineering - Electrical Exterior Facilities. NAVFAC MO-200/AFJMAN 32-1082.	No	No
	TM 5-811-1	Electric Power Supply and Distribution {AFJMAN 32-1080}	No	No
	TM 5-811-3	Electrical Design: Lightning and Static Electricity Protection. AFM 88-9, Chap 3.	No	No

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT. Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, Multiservice Tactics, Techniques, and Procedures for Nuclear, Biological, and Chemical (NBC) Protection, FM 3-11.5, Multiservice Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Decontamination. All safety considerations are mentioned in the task performance steps and are annotated as DANGERS, CAUTIONS and WARNINGS. A thorough risk assessment must be completed prior to every mission or operation.

Prerequisite Individual Tasks :

Task Number	Title	Proponent	Status
052-204-1203	Perform Operator Preventive-Maintenance Checks and Services (PMCS) on a Bucket/Material Handler Truck	052 - Engineer (Individual)	Approved
052-204-2303	Perform Primary Voltage Live-Line Testing	052 - Engineer (Individual)	Approved
052-204-1117	Inspect Hot-Line Equipment	052 - Engineer (Individual)	Approved
052-204-1108	Inspect Safety Equipment	052 - Engineer (Individual)	Approved
052-204-1124	Climb a Utility Pole	052 - Engineer (Individual)	Approved

052-204-1119	Perform Operator Preventive-Maintenance Checks and Services (PMCS) on a Line Truck With Auxiliary Equipment	052 - Engineer (Individual)	Approved
052-204-1201	Maintain Climbing Equipment	052 - Engineer (Individual)	Approved
052-204-1202	Maintain Rigging/Hoisting Equipment	052 - Engineer (Individual)	Approved
052-204-2301	Perform Switching, Blocking and Tagging Procedures	052 - Engineer (Individual)	Approved
052-204-1123	Secure Conductor to Insulator (De-energized)	052 - Engineer (Individual)	Approved
052-204-2304	Perform Secondary Voltage Live-Line Testing	052 - Engineer (Individual)	Approved
052-204-1125	Operate a Line Truck with Auxiliary Equipment	052 - Engineer (Individual)	Approved
052-204-1128	Interpret an Electrical One-Line Diagram	052 - Engineer (Individual)	Reviewed
052-204-1114	Rescue an Injured Victim From a Utility Pole	052 - Engineer (Individual)	Approved
052-204-1204	Tie Rope Knots and Splices	052 - Engineer (Individual)	Approved

Supporting Individual Tasks :

Task Number	Title	Proponent	Status
052-204-1203	Perform Operator Preventive-Maintenance Checks and Services (PMCS) on a Bucket/Material Handler Truck	052 - Engineer (Individual)	Approved
052-204-1125	Operate a Line Truck with Auxiliary Equipment	052 - Engineer (Individual)	Approved
052-204-1117	Inspect Hot-Line Equipment	052 - Engineer (Individual)	Approved
052-204-1116	Rescue an Injured Victim From an Aerial-Bucket Truck	052 - Engineer (Individual)	Approved
052-204-1120	Install a Grounding Set	052 - Engineer (Individual)	Approved
052-204-1119	Perform Operator Preventive-Maintenance Checks and Services (PMCS) on a Line Truck With Auxiliary Equipment	052 - Engineer (Individual)	Approved
052-204-1202	Maintain Rigging/Hoisting Equipment	052 - Engineer (Individual)	Approved
052-204-1212	Operate a Bucket/Material Handler Truck	052 - Engineer (Individual)	Reviewed

Supported Individual Tasks :

Task Number	Title	Proponent	Status
052-204-1215	Splice a Medium-Voltage Overhead Power Cable	052 - Engineer (Individual)	Approved
052-204-2217	Manage a Power Line Crew	052 - Engineer (Individual)	Approved
052-204-1126	Perform Crossarm Change Out (With Conductors)	052 - Engineer (Individual)	Approved
052-204-2210	Secure Conductor to Insulator (Energized)	052 - Engineer (Individual)	Approved
052-204-1211	Install Distribution System Protection and Equipment (De-energized)	052 - Engineer (Individual)	Approved
052-204-3016	Supervise the Stringing of Overhead Conductors	052 - Engineer (Individual)	Approved
052-204-3015	Supervise the Sagging of Overhead Conductors	052 - Engineer (Individual)	Approved

Supported Collective Tasks :

Task Number	Title	Proponent	Status
05-3-5725	Install Aerial Electrical Power Distribution Equipment	05 - Engineers (Collective)	Approved

05-3-5704	Perform Nonorganic Equipment Power Distribution Maintenance Operations	05 - Engineers (Collective)	Approved
05-3-5731	Perform Electrical-Power, Distribution Equipment Organizational Maintenance Operations	05 - Engineers (Collective)	Approved
05-3-5713	Perform a Power Distribution System Maintenance Survey	05 - Engineers (Collective)	Approved

ICTL Data :

ICTL Title	Personnel Type	MOS Data
12Q10, Power Line Distribution Specialist, skill level 1	Enlisted	MOS: 12Q, Skill Level: SL1
ASI U4, Power Line Distribution	Enlisted	MOS: 12P, ASI: U4