

## Demonstrate Test and Repair Cables, Terminals and Caterpillar Connector

Skill Number TDP15GN113

Full Name: Arson Hardi W

SN/SAP ID: -

Job Title: Guru

Branch/Area: SMKN 01 Singosari

### PERFORMANCE TASK:

Given a soldering iron, cable, wire and various electrical connectors, and necessary tools. The Serviceman must be able to perform task on test and repair cables, terminals and caterpillar connector safely and correctly with refer to appropriate service literature.

Note: For skill assessment purpose, create the improper condition such as:

- Untidy cable/wire condition
- Too many connections along the cable
- Messy cable/wire.

The serviceman must be able to complete the following tasks:

- Perform repair procedure using an electrical terminal kit (note: 5 item minimum)
- Perform repair procedure on sure seal connector (note: 5 item minimum)
- Perform repair procedure on DT connector (note: 5 item minimum)
- Perform repair procedure on Ampseal connector (note: 5 item minimum)
- Perform repair procedure using soldering iron for stranded cable
- Check the connection after make a repairmen
- Perform close the job by ensuring all systems or conditions are in the standard condition
- Perform communication & etiquette manner

Time allowed: Standard Hours (Refer to Standard Time Pricing) 8 Hours

Prerequisite	Yes	No	N/A	Hints
The Student must complete the knowledge assessment. Minimum passing grade 80%.	✓			Refer to SAP

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<b>Preparation</b>				
Prepare related literature	✓			Candidate should be aware to check all literature such as SIS, Service Manual, Electric Schematic.
Prepare required equipment	✓			- 140-9944 Electric Terminal Assortment - Standard Wire
Prepare related tools	✓			- 6V-3000 Sure Seal Repair Kit - 175-3700 Deutsch Style Connector Service Kit - 1U-5804 Crimp Tool - 270-5051 Ampseal Connector Kit - 9U-7560 Field Soldering Iron Group - Heat Shrink and Extraction Tool - Electric Isolator Tape
Prepare Safety & Contamination Control equipment	✓			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<b>Perform etiquette/manner when starting the job</b>				
Meet the customer.	✓			
Perform etiquette/manner when opening the interaction.	✓			<ul style="list-style-type: none"> <li>• Perform smile &amp; greetings.</li> <li>• Introduce Serviceman's identity).</li> </ul>
Explain the purpose of Serviceman's activity.	✓			
Ask permission to perform the job.	✓			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<b>Testing and Repair Various Cables, Terminal and Caterpillar Connector</b>				
Repair using an electrical terminal kit	✓			<p>(note: 5 item minimum)</p> <p>Stripping cable with a wire stripper and adjusted to the size of AWG cable stripping tool.</p> <p>Torsion only to unify wired, do not twist too much</p> <p>Insert the cable through the hole in the back of the terminal and crimping wires firmly fixed to give a bond between the cable terminal.</p> <p>Follow service procedure on Service Manual correctly</p> <p>Follow standard safety &amp; contamination control procedure related to the job</p>
Repair on sure seal connector	✓			<p>(note: 5 item minimum)</p> <p>Stripping the cables, and adjust AWG cable with stripping tool</p> <p>Pull the cable and stripping tool in the opposite direction (stripping tool is pulled away from the body)</p> <p>Results stripping should correspond to the length of the pin / socket</p> <p>Pinch part of pin / socket that binds the conductor in the rear jaw crimping tool</p> <p>Ensure strong binding results crimping cable conductors and insulators.</p> <p>Recommended crimping results in solder to make it more strong</p> <p>Enter the insertion tool through the front connector.</p> <p>Insert the cable into the hole in the connector insertion tool.</p> <p>Hold the cable and connector, then pull the insertion tool to be separated from the connector</p> <p>After separated usually is not parallel to the base socket connector and pull the cable in order to align with the base connector socket.</p> <p>Cover the unused connector with a sealing plug</p> <p>Follow service procedure on Service Manual correctly</p>

				Follow standard safety & contamination control procedure related to the job
Repair on DT connector	✓			<p>(note: 5 item minimum)</p> <p>Stripping the cables, and adjust AWG cable with stripping tool</p> <p>Pull the cable and stripping tool in the opposite direction (stripping tool is pulled away from the body)</p> <p>Results stripping should correspond to the length of the pin / socket</p> <p>Adjust the size of the cable to adjust the wire gauge selector is behind crimping tool</p> <p>Insert the cable that has been in crimping the socket on the back of the socket housing and socket feel locked into place.</p> <p>Make sure the plug wedge into place on the connector.</p> <p>Make sure the receptacle wedge into place on the connector.</p> <p>Follow service procedure on Service Manual correctly</p> <p>Follow standard safety &amp; contamination control procedure related to the job</p>
Repair on Ampseal connector	✓			<p>(note: 5 item minimum)</p> <p>Stripping the cables, and adjust AWG cable with stripping tool</p> <p>Pull the cable and stripping tool in the opposite direction (stripping tool is pulled away from the body)</p> <p>Results stripping should correspond to the length of the pin / socket</p> <p>Adjust the size of the cable to adjust the wire gauge selector is behind crimping tool</p> <p>Insert the cable that has been in crimping the socket on the back of the socket housing and socket feel locked into place.</p> <p>Make sure the plug wedge into place on the connector.</p> <p>Make sure the receptacle wedge into place on the connector.</p> <p>Follow service procedure on Service Manual correctly</p> <p>Follow standard safety &amp; contamination control procedure related to the job</p>

Repair using soldering iron for stranded cable	✓			<p>Prepare cables to be connected</p> <p>Adjust the size of the cable with a wire stripper on the size crimping tool</p> <p>Give solder on the wire is not at the end of the soldering iron</p> <p>Make sure the soldering results neatly and there are no sharp</p> <p>Protect soldering results with tape</p> <p>Make sure the tape covering all part of the connection</p> <p>Follow service procedure on Service Manual correctly</p> <p>Follow standard safety &amp; contamination control procedure related to the job</p>
<b>Documentation :</b>				
Take picture if needed			✓	

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<b>Perform final inspection</b>				
Ensuring all systems or conditions are in the standard condition	✓			<ul style="list-style-type: none"> <li>Find untidy cable/wire condition, too many connections along the cable (for skill assessment purposes only)</li> <li>Communicate the finding to the customer, clean up and no connections along the cable (for skill assessment purposes only)</li> <li>The action can be done at anytime</li> </ul>

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<b>Reporting</b>				
All relevant documentation completed correctly, and approved by customer (if required).			✓	<ul style="list-style-type: none"> <li>Completing the Task List</li> <li>Create Field Operation Report/Daily Record Activity/Job Time Card</li> <li>Completing Measurement Form/Related Check Sheet, if required</li> <li>Create Service Report (SIMS), if required</li> <li>Create SPR, if required</li> <li>Documenting the failed or damaged parts, if required</li> </ul>

				<ul style="list-style-type: none"> <li>Provide Technical Analysis Report/Failure Analysis Report/Re-Work Analysis Report, if required.</li> </ul>
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Tasks	Completed		Observation / Hints
	Yes	No	
<b>Safety</b>			
Using APD related to the job	✓		
Follows relevant workplace safety guidelines (tag out, safety equipment)	✓		
State and follow safety precautions	✓		Serviceman must follow safety procedure refer to service manual or SIS related to job
Serviceman completes job without accident due to incorrect procedure using hand tools.	✓		<ul style="list-style-type: none"> <li>Correct serviceman position</li> <li>Correct hand tool related to the job</li> </ul>
Tasks completed without damage equipment and tools	✓		

Tasks	Completed		Observation / Hints
	Yes	No	
<b>Contamination Control</b>			
Environmental Practices & Housekeeping	✓		<ol style="list-style-type: none"> <li>Waste is minimized, waste material, including sludge; solids and other wastes are sorted and stored in bins for recycling or disposal</li> <li>Packaging of goods received is sorted and reused or disposed of by recycling</li> <li>Materials that can be reused are cleaned and stored</li> <li>Waste and scrap is removed following workplace procedures</li> <li>All fluids are disposed of in accordance with enterprise policies and procedures</li> </ol>

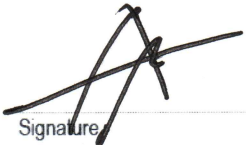
Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<b>Perform etiquette/manner after completing the job</b>				
Explain the action taken (from content of report) and also the result of the job activity.	✓			Explain clearly
Advice customer the tips or method for future maintenance and operation.	✓			Advice clearly
Clarify or ensure that customer understands clearly.	✓			Perform clarifying question technique.
Ask customer if they have additional concerns or problems to be supported.	✓			
Perform etiquette/manner when closing the communication.	✓			<ul style="list-style-type: none"> <li>• Perform smile &amp; greetings.</li> <li>• Ask permission to leave or end the interaction.</li> </ul>

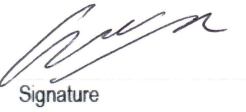
Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<b>Perform nonverbal expression and communication.</b>				
Perform nonverbal expression and communication.	✓			<ol style="list-style-type: none"> <li>1. Maintain eye contact with customer.</li> <li>2. Display confident posture.</li> <li>3. Speak with appropriate beat/rhythm and volume.</li> <li>4. Display appropriate facial expression (smile/ serious / curious/ confident, etc).</li> <li>5. Display appropriate gesture when explaining the information.</li> </ol>

**General Comments**

→ Task complete refer to ~~man~~ service manual  
 → perform CC & safety procedure

RESULT:  COMPETENT  NOT YET COMPETENT (please check (√))

Serviceman: ARSAH HAROLI W 5-6/01/2016   
 Name Date Signature

Assessor: M. Amrullah 5-6/01/2016   
 Name Date Signature

Supervisor: \_\_\_\_\_  
 Name Date Signature

Data Recorded: \_\_\_\_\_  
 Name Date Signature