

## Demonstrate Selecting the Correct Fasteners and Locking Application for Maintenance and Repair of Heavy Equipment

Skill Number CO-OP15GN107

Full Name: Kamran Fahurrahman

No ID: \_\_\_\_\_

Validation Date: 11 - 2 - 2022

School: SMKN 1 Sangsari

**PERFORMANCE TASK:**

Given several fasteners and the necessary tools, as listed:

- Castellated nut
- Circlips
- Clevis Pin
- Flat Washer
- Spring Washer
- Star Washers
- Self-tapping screw
- Stud
- Wing nut
- Woodruff key
- Lockwire
- Bolt
- Nut
- Thread Lubricant and other Adhesives

The student must identify and explain their function. Student will be required to answer questions on their findings. The student will also be required to complete relevant workplace documentation and is to always observe the correct safety procedures.

Students are required to fill out this form, in the appropriate place, indicating that an inspection of components has occurred and their decision, after inspection is recorded

The student must be able to perform the following task:

- Demonstrate identify and explain the function of provided fasteners and necessary tools.
- Perform communication & etiquette manner

Safety and Contamination Control must be always applied to this process. Literature and measuring tools will be made available but will not be provided directly to the student.

Prerequisite	Yes	No	N/A	Hints
The student must complete the knowledge assessment. Minimum passing grade 80%.	<input checked="" type="checkbox"/>			Score fastener course or subject.

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Preparation				
Prepare related literature	<input checked="" type="checkbox"/>			Observe if the candidate is preparing Manufacturer's literature related to the task
Prepare required equipment	<input checked="" type="checkbox"/>			
Prepare related tools	<input checked="" type="checkbox"/>			Observe if the candidate is preparing related tools (e.g.: Thread Identification Kit, etc.)
Prepare Safety & Contamination Control equipment	<input checked="" type="checkbox"/>			Observe if the candidate is preparing related Safety & CC Equipment (e.g.: PPE, Blue Towel, Plastic Wrap, etc.)

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Perform etiquette/manner when starting the job				
Meet the customer / assessor	<input checked="" type="checkbox"/>			
Perform etiquette/manner when opening the interaction.	<input checked="" type="checkbox"/>			• Perform smile & greetings. • Introduce Student's identity
Explain the purpose of Student's activity.	<input checked="" type="checkbox"/>			
Ask permission to perform the job.	<input checked="" type="checkbox"/>			

Identification	Check			Observation / Hints
	Yes	No	N/A	
1. Accessing Information	✓			Observe if the candidate is accessing information relating task from manufacturer's literature
2. Castellated Nut	✓			Identify Name, Application and Part Number
3. Circlip	✓			Identify Name, Application and Part Number
4. Clevis Pin	✓			Identify Name, Application and Part Number
5. Flat washer	✓			Identify Name, Application and Part Number
6. Spring washer	✓			Identify Name, Application and Part Number
7. Star washer	✓			Identify Name, Application and Part Number
8. Self-tapping screw	✓			Identify Name, Application and Part Number
9. Stud	✓			Identify Name, Application and Part Number
10. Wing nut	✓			Identify Name, Application and Part Number
11. Woodruff key	✓			Identify Name, Application and Part Number
12. Lockwire	✓			Identify Name, Application and Part Number
13. Thread Lubricant & other Adhesives	✓			Explain the function, when and where it used.

Thread Identification	Complete			Observation / Hints
	Yes	No	N/A	
UNC	✓			Determine thread size
UNF	✓			Determine thread size
Whitworth	✓			Determine thread size
Metric	✓			Determine thread size
AF	✓			Determine thread size
BSW	✓			Determine thread size

  

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Perform close the job by ensuring all systems or conditions is in the standard condition	✓			<ul style="list-style-type: none"> <li>Find the improper condition.</li> <li>Communicate the finding to the customer/assessor.</li> </ul>
Ensure all systems or conditions are in standard condition.	✓			
<b>Reporting</b>	✓			<ul style="list-style-type: none"> <li>Completing the Task List</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> <li>Provide Technical Analysis Report/Failure Analysis Report, if required.</li> </ul>
All relevant documentation completed correctly and approved by customer (if required).	✓			

Tasks	Completed		Observation / Hints
	Yes	No	
Safety			
Using PPE related to the job	✓		
Follows relevant Workplace Safety Guidelines (LOTO, Safety Equipment)	✓		<ul style="list-style-type: none"> <li>Comply with safety regulation that applied on the workplace</li> </ul>
State and follow Safety Precautions	✓		<ul style="list-style-type: none"> <li>Create Job Safety Analysis</li> <li>Student must follow safety procedure refer to service manual or SIS related to job</li> </ul>
Service man completes job without accident due to incorrect procedure using hand tools.	✓		<ul style="list-style-type: none"> <li>Correct working 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	
Contamination Control			
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	
Perform etiquetamanner after completing the job	✓			<ul style="list-style-type: none"> <li>Perform smile &amp; greetings.</li> <li>Ask permission to leave or end the interaction.</li> </ul>
Perform etiquetamanner when closing the communication.				

General Comments

*Task Completed*

RESULT:

COMPETENT

NOT YET COMPETENT

(please check (✓))

Student:

*Kanzak Fahurrahman*

*19/2016*

Signature

*Kanzak*

Assessor:

*Arsan Hardi W. S.Pd, G.P.W*

*NIP. 19840822 202221 1012*

Signature

*Arsan*

Supervisor:

Name

Date

Signature

Data Recorder:

Name

Date

Signature

### Demonstrate Selecting the Correct Fasteners and Locking Application for Maintenance and Repair of Heavy Equipment

Skill Number CO-OP15GN107

Full Name: Hanzoh Kathurawan

No ID: \_\_\_\_\_

Validation Date: 11-02-2016

School: SMPN 1 Sngosari

**PERFORMANCE TASK:**

Given several fasteners and the necessary tools, as listed:

- Castellated nut
- Circlips
- Clevis Pin
- Flat Washer
- Spring Washer
- Star Washers
- Self-tapping screw
- Stud
- Wing nut
- Woodruff key
- Lockwire
- Bolt
- Nut
- Thread Lubricant and other Adhesives

The student must identify and explain their function. Student will be required to answer questions on their findings. The student will also be required to complete relevant workplace documentation and is to always observe the correct safety procedures.

Students are required to fill out this form, in the appropriate place, indicating that an inspection of components has occurred and their decision, after inspection is recorded

The student must be able to perform the following task:

- Demonstrate identify and explain the function of provided fasteners and necessary tools.
- Perform communication & etiquette manner

Safety and Contamination Control must be always applied to this process. Literature and measuring tools will be made available but will not be provided directly to the student.

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



Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Preparation				
Prepare related literature	✓			
Prepare required equipment	✓			
Prepare related tools	✓			
Prepare Safety & Contamination Control equipment	✓			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Perform etiquette/manner when starting the job	✓			
Meet the customer / assessor	✓			
Perform etiquette/manner when opening the interaction.	✓			
Explain the purpose of Student's activity.	✓			
Ask permission to perform the job.	✓			



Tasks	Check			Observation / Hints
	Yes	No	N/A	
1. Accessing Information	<input checked="" type="checkbox"/>			
2. Castellated Nut	<input checked="" type="checkbox"/>			
3. Crodip	<input checked="" type="checkbox"/>			
4. Clevis Pin	<input checked="" type="checkbox"/>			
5. Flat washer	<input checked="" type="checkbox"/>			
6. Spring washer	<input checked="" type="checkbox"/>			
7. Star washer	<input checked="" type="checkbox"/>			
8. Self-tapping screw	<input checked="" type="checkbox"/>			
9. Stud	<input checked="" type="checkbox"/>			
10. Wing nut	<input checked="" type="checkbox"/>			
11. Woodruff key	<input checked="" type="checkbox"/>			
12. Lockwire	<input checked="" type="checkbox"/>			
13. Thread Lubricant & other Adhesives	<input checked="" type="checkbox"/>			

Tasks	Complete			Observation / Hints
	Yes	No	N/A	
Thread Identification				
UNC	<input checked="" type="checkbox"/>			
UNF	<input checked="" type="checkbox"/>			
Whitworth	<input checked="" type="checkbox"/>			
Metric	<input checked="" type="checkbox"/>			
AF	<input checked="" type="checkbox"/>			
BSW	<input checked="" type="checkbox"/>			
Tasks	Yes	No	N/A	Observation / Hints
Perform close the job by ensuring all systems or conditions is in the standard condition	<input checked="" type="checkbox"/>			
Ensure all systems or conditions are in standard condition.	<input checked="" type="checkbox"/>			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Reporting				
All relevant documentation completed correctly and approved by customer (if required).	<input checked="" type="checkbox"/>			
Tasks	Completed	Yes	No	Observation / Hints
Safety				
Using PPE related to the job	<input checked="" type="checkbox"/>			
Follows relevant Workplace Safety Guidelines (LOTO, Safety Equipment)	<input checked="" type="checkbox"/>			
State and follow Safety Precautions	<input checked="" type="checkbox"/>			
Service man completes job without accident due to incorrect procedure using hand tools.	<input checked="" type="checkbox"/>			
Tasks completed without damage equipment and tools	<input checked="" type="checkbox"/>			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Contamination Control				
Environmental Practices & Housekeeping	<input checked="" type="checkbox"/>			
Tasks	Completed	Yes	No	Observation / Hints
Perform etiquette/manner after completing the job	<input checked="" type="checkbox"/>			
Perform etiquette/manner when closing the communication.	<input checked="" type="checkbox"/>			

General Comments

*Task Completed*

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

Student: *Konrad Fathurrahman 1/2 2021*

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Signature: *Konrad*

Assessor: *Arsan Hardi W, S.Pd, S.H, N*

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Signature: *Arsan*

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

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

ANALISIS LINGKUNGAN KESELAMATAN KERJA / JOB SAFETY ENVIRONMENT ANALYSIS

Pekerjaan	Membuat Papan Foster	Nomor JSEA		Halaman	1	Date	1
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Tanggal Pembuatan JSEA	10-2-2012	Departemen	Service	Tempat Kerja	Workshop TAB
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Disusun Oleh	Hamza	Review Oleh	Hamza	Atasan	Supervisor	TTD	Sign
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Apakah Anda sudah terlatih untuk melakukan pekerjaan ini? / Are you properly trained to complete these task?		<input checked="" type="checkbox"/> Ya / Yes	<input type="checkbox"/> Tidak / No
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Tools yang digunakan sudah sesuai dengan Manual  
 Siapa yang bertanggung jawab untuk menghentikan pekerjaan jika terjadi perubahan pekerjaan atau gangguan kondisi lingkungan kerja? / Who is responsible for Stop Work Authority if change job or workplace distraction could?

ABCD-1 (Technician Leader) / Mr. X (Customer)  
 Apakah Anda memerlukan peralatan LOTO? / Are you need LOTO Equipments?  
 Ya / Yes  
 Tidak / No

Apakah Anda mengetahui ERM/ERP dari pekerjaan yang sedang dilakukan?  
 Ya / Yes  
 Tidak / No

Kondisi Lingkungan / Environmental Conditions	Normal	Cuaca / Weather	Cerah	Medan / Terrain	Tanah
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Pengendalian Sumber Bahaya / Hazardous Energy Control	<input checked="" type="checkbox"/> Listrik / Electrical <input type="checkbox"/> Hidraulik / Hydraulic <input type="checkbox"/> Mekanis / Mechanical	<input checked="" type="checkbox"/> Gravitasi (Benda jatuh, termpa) / Gravitation (Falling objects, struck down) <input type="checkbox"/> Pneumatik / Pneumatic
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APD yang diperlukan	<input checked="" type="checkbox"/> Helm / Safety Helm <input checked="" type="checkbox"/> Sarung Tangan / Hand Gloves <input checked="" type="checkbox"/> Sepatu / Safety Shoes	<input checked="" type="checkbox"/> Pelindung Muka / Face shield <input type="checkbox"/> Pelindung Pernafasan / Respiratory Protection <input type="checkbox"/> Pelindung Telinga / Hearing Protection	<input type="checkbox"/> Kacamata / Safety Glass <input type="checkbox"/> Lain-Lain / Other
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Hal yang perlu dipertimbangan dalam mengidentifikasi bahaya / These to consider in identify hazards :  
 1. Bahaya Keselamatan : Kondisi tidak aman yang dapat menyebabkan cedera atau kematian seperti terjepit, terpeleceh, terjatuh, terciprat dll.  
 2. Bahaya Fisik : Listrik, Api/ledakan, Kebisingan, Radiasi, Panas, Tekanan, Terjepit, Tersandung/terjatuh, Tertimpa, Desain area kerja.  
 3. Bahaya Ergonomi : Gerakan berulang-ulang, beban yang berlebihan, Postur Janggal, Durasi kerja.  
 4. Bahaya Biologi : Patogen yang ditularkan melalui darah, jamur, tanaman/serangga/pelewan.  
 5. Bahaya Organisme : Repetitions, Forceful extension, Awkward Posture, Duration, Work area desain.  
 6. Bahaya Organisasi : stres atau bahaya terkait dengan masalah tempat kerja yang menyebabkan efek jangka panjang atau pendek, beban kerja yang berat dan kekecewaan ditempat kerja.  
 Organizational hazards: stressors or hazards associated with workplace issues that cause long or term effects heavy workloads, stressful interactions and workplaces violence.

No	Urutan Dasar Langkah Tugas / Job Steps (* Maksimum 15 Langkah / Maximum 15 Steps)	Bahaya Yang Terkait / Potential Hazard(s)	Tindakan Perbaikan / Recommended Action
1.	Walk around inspection	1.1. Terjepit fosterer	1.1. Hindang titik jepit
2	Prepare tool	2.1. Termpa tool	2.1.1. Hati-hati saat menengok tool 2.1.2. Gunakan safety shoes.
3	Make a fosterer board	3.1. Tergores hand saw	3.1.1. Perhatikan arah hand saw 3.1.2. Perhatikan area kontak hand saw.
		3.2. Terhucut serpihan terpek	3.2.1. Gunakan safety gloves.
		3.3. Terhucut kawat	3.3.1. Hati-hati saat memotong kawat
		3.4. Tersekat listrik.	3.4.1. Pastikan kabel listrik tidak terkilap
		4.1. Terhucut kawat	4.1.1. Hati-hati saat mengambil kawat dilantai 4.1.2. Gunakan Safety gloves
		4.2. Tersengat listrik	4.2.1. Hati-hati saat melepas stop control

ANALISIS LINGKUNGAN KESELAMATAN KERJA / JOB SAFETY ENVIRONMENT ANALYSIS

Pekerjaan	Membuat Pakan Fastener	Nomor JSEA		Halaman	1	Dari	1
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Tanggal Pembuatan JSEA	10 Februari 2016	Departemen	SERVICE	Tempat Kerja	Workshop TAB
Disusun Oleh	Galien	Review Oleh	<i>[Signature]</i>	Atasan	
Complied By	Galien	Reviewed By		Supervisor	

Apakah Anda sudah terlatih untuk melakukan pekerjaan ini? / Are you properly trained to complete these task?  Ya / Yes  Tidak / No

Apakah Anda memastikan bahwa pekerjaan selesai tanpa adanya kecelakaan kerja? / What do you need to ensure this job is completed incident free?  Ya / Yes  Tidak / No

Tools yang digunakan sudah sesuai dengan Manual?  Ya / Yes  Tidak / No

Siapa yang bertanggung jawab untuk menghentikan pekerjaan jika terjadi perubahan pekerjaan atau gangguan kondisi lingkungan kerja? / Who is responsible for Stop Work Authority if change job or workplace distraction could?  Ya / Yes  Tidak / No

ABCD-1 (Technician Leader) / Mr. X (Customer)  Ya / Yes  Tidak / No

Apakah Anda mengetahui ERP/MERP dan pekerjaan yang sedang dilakukan?  Ya / Yes  Tidak / No

Kondisi Lingkungan / Environmental Conditions	Normal	Cuaca / Weather	Cerah	Medan / Terrain	Datar
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Pengendalian Sumber Bahaya / Hazardous Energy Control	<input checked="" type="checkbox"/> Listrik / Electrical	<input checked="" type="checkbox"/> Gravitasi (Benda jatuh, tertimpa) / Gravitational (Falling objects)	<input type="checkbox"/> Pneuematik / Pneumatic
APD yang diperlukan	<input checked="" type="checkbox"/> Helm / Safety Helm	<input type="checkbox"/> Pelindung Muka / Face shield	<input checked="" type="checkbox"/> Kacamata / Safety Glass
Required PPE	<input checked="" type="checkbox"/> Sarung Tangan / Hand Gloves	<input type="checkbox"/> Pelindung Pernafasan / Respiratory Protection	<input type="checkbox"/> Pertindungan Kejut / Fall Protection
	<input checked="" type="checkbox"/> Sepatu / Safety Shoes	<input type="checkbox"/> Pelindung Telinga / Hearing Protection	<input type="checkbox"/> Lain-lain / Other .....

Hal yang perlu dipertimbangan dalam mengidentifikasi bahaya / These to consider in identify hazards :

1. Bahaya Keselamatan : Kondisi tidak aman yang dapat menyebabkan injury atau kematian seperti terjepit, terpeset/terjebak, tertimpa dll.

2. Bahaya Fisik : Listrik, Api/ledakan, Kebisingan, Radiasi, Panas, Tekanan, Terjepit, Tersandung/terjatuh, Tertimpa, Desain area kerja.

3. Bahaya Ergonomi : Gerakan berulang-ulang, beban yang berlebihan, Postur Janggal, Durasi kerja.

4. Bahaya Biologi : Patogen yang ditularkan melalui darah, jamur, tanaman/serangga/hewan.

5. Bahaya Ergonomi : Gerakan berulang-ulang, beban yang berlebihan, Postur Janggal, Durasi kerja.

6. Bahaya Organisasi : stres atau bahaya terkait dengan masalah tempat kerja yang menyebabkan efek jangka panjang atau pendek, beban kerja yang berat dan ketertarikan ditempat kerja.

7. Bahaya Kimia : Terhirup, terkena kulit, ineksi, tertelan, teresap.

8. Bahaya Energi : Energi mekanik, energi listrik, energi panas, energi kimia, energi hidraulik, energi potensial.

No	Urutan Dasar Langkah Tugas / Job Steps (Maximum 15 Langkah / Maximum 15 Steps)	Bahaya Yang Terkati / Potential Hazard(s)	Tindakan Perbaikan / Recommended Action
1	Kalk Around Inspection	1.1 terjepit fastener	1.1.1 Perhatikan the jepit.
2	Prepare tools	2.1 tertera tools	2.1.1 Halai - hait saat memegang tool. 2.1.2 Gunakan safety gloves.
3	Make a Fastener board.	3.1 tergores hand saw	3.1.1 Perhatikan arah kontak hand saw 3.1.2 Perhatikan area kontak hand saw
		3.2 bertukar triple	3.2.1 gunakan safety gloves
		3.3 terputus Kawat	3.3.1 hait - hait saat memotong.
		3.4 terengat listrik	3.4.1 perhatikan kabel listrik. Hentikan pekerjaan 3.4.2 pastikan tidak ada air terserung.
4	Hour Keeping	4.1 tertera kawat saat mengamb 4.2 terengat listrik	4.1.1 hait - hait saat mengambil fast of lam. 4.1.2 gunakan safety gloves 4.2.1 hait - hait saat melepas listrik.