

Demonstrate Selecting, Using and Maintaining Various Power Tools Correctly

Skill Number CO-OP15GN103

Full Name: Dimas Surya Hadi W. No ID: _____
 Validation Date: 31-12-2025 School: SMKN 1 Singaperbangsa

PERFORMANCE TASK:

Given some power tools, the student is requested to perform the following tasks:

- Selecting, using, maintaining various Power Tools in installation of Engine or other system components.
- Perform close the job by ensuring all systems or conditions is in the standard condition.

Safety and Contamination Control must be applied to this process. All literature will be available.

Prerequisite	Yes		No		Hints
	Yes	No	N/A		
The student must complete the knowledge assessment. Minimum passing grade 80%.	<input checked="" type="checkbox"/>				
Tasks	Completed		N/A		Observation / Hints
	Yes	No	N/A		
Preparation	<input checked="" type="checkbox"/>				
Prepare related literature	<input checked="" type="checkbox"/>				
Prepare required equipment	<input checked="" type="checkbox"/>				
Prepare related tools	<input checked="" type="checkbox"/>				
Prepare Safety & Contamination Control equipment	<input checked="" type="checkbox"/>				

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

Tasks	Completed		Observation / Hints
	Yes	No	
Selecting, Using and Maintaining Various Power Tools			
1. Inspect the Power Tool before using	<input checked="" type="checkbox"/>		
2. Remove and install or disassemble and assemble conducted according to correct procedures	<input checked="" type="checkbox"/>		
3. Tasks completed without damage to equipment and tools	<input checked="" type="checkbox"/>		
4. Equipment and tooling is cleaned and returned to its correct location	<input checked="" type="checkbox"/>		
5. Work area left clean and tidy	<input checked="" type="checkbox"/>		
Documentation:			
Take picture if needed			

Tasks	Completed		Observation / Hints
	Yes	No	
Perform close the job by ensuring all systems or conditions is in the standard condition			
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).				
	✓			

Tasks	Completed		Observation / Hints
	Yes	No	
Safety			
Using APD related to the job	✓		
Follows relevant workplace safety guidelines (tag out, safety equipment)	✓		
State and follow safety precautions	✓		
Serviceperson completes job without accident due to incorrect procedure using hand tools.	✓		
Tasks completed without damage equipment and tools	✓		

Tasks	Completed		Observation / Hints
	Yes	No	
Contamination Control			
Environmental Practices & Housekeeping	✓		

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Perform etiquette/manner after completing the job				
Perform etiquette/manner when closing the communication.	✓			

General Comments

Blank area for general comments.

RESULT:

COMPETENT

NOT YET COMPETENT

(Please check (X))

Student:

Dimas Surya HU

31-12-2025

Dimas Surya

Assessor:

Selvaesa TB

21/12 25

Selvaesa TB

Supervisor:

Name

Date

Signature

Data Recorded:

Name

Date

Signature

Demonstrate Selecting, Using and Maintaining Various Power Tools Correctly

Skill Number CO-OP15GN103

Full Name: Dimas Surya Hadi W.

No ID: _____

Validation Date: 31-12-2025

School: SMWEN 1 Singasari

PERFORMANCE TASK:

Given some power tools, the student is requested to perform the following tasks:

- Selecting, using, maintaining various Power Tools in installation of Engine or other system components.
- Perform close the job by ensuring all systems or conditions is in the standard condition.

Safety and Contamination Control must be applied to this process. All literature will be available.

Prerequisite	Completed			Hints
	Yes	No	N/A	
The student must complete the knowledge assessment. Minimum passing grade 80%.	✓			Score power tools course or subject.

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
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.	✓			• Perform smile & greetings. • Introduce Student's Identity
Explain the purpose of Student's activity.	✓			
Ask permission to perform the job.	✓			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Selecting, Using and Maintaining Various Power Tools				
1. Inspect the Power Tool before using	✓			Visual inspection of the Power Tool for wear, cracks, damage
2. Remove and install or disassemble and assemble conducted according to correct procedures	✓			Equipment and tooling are identified and checked for correct, safe, and effective operation and must refer to the Literatures
3. Tasks completed without damage to equipment and tools	✓			Component and tooling are cleaned and stored on the right place
4. Equipment and tooling is cleaned and returned to its correct location	✓			Cleaned and stored equipment tools on the right place.
5. Work area left clean and tidy	✓			Area cleaned from spills and wastes.
Documentation:				
Take picture if needed	✓			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Perform close the job by ensuring all systems or conditions is in the standard condition	✓			
Ensure all systems or conditions are in standard condition.	✓			• Find the improper condition. • Communicate the finding to the customer/assessor.

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<p>Reporting</p> <p>All relevant documentation completed correctly and approved by customer (if required).</p>	✓			<ul style="list-style-type: none"> • Completing the Task List • Completing Measurement Form/Related Check Sheet, if required • Create Service Report (SIMS), if required • Create SPR, if required • Documenting the failed or damaged parts, if required • Provide Technical Analysis Report/Failure Analysis Report, if required.

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<p>Safety</p> <p>Using APD related to the job</p>	✓			
<p>Follows relevant workplace safety guidelines (tag out, safety equipment)</p>	✓			<ul style="list-style-type: none"> • Comply with safety regulation that applied on the workplace
<p>State and follow safety precautions</p>	✓			<ul style="list-style-type: none"> • Create Job Safety Analysis • Student must follow safety procedure refer to service manual or SIS related to job
<p>Service man completes job without accident due to incorrect procedure using hand tools.</p>	✓			<ul style="list-style-type: none"> • Correct working position • Correct hand tool related to the job
<p>Tasks completed without damage equipment and tools</p>	✓			

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<p>Contamination Control</p> <p>Environmental Practices & Housekeeping</p>	✓			<ol style="list-style-type: none"> 1. Waste is minimized, waste material, including sludge, solids and other wastes are sorted and stored in bins for recycling or disposal 2. Packaging of goods received is sorted and reused or disposed of by recycling 3. Materials that can be reused are cleaned and stored 4. Waste and scrap is removed following workplace procedures 5. All fluids are disposed of in accordance with enterprise policies and procedures

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
<p>Perform etiquette/manner after completing the job</p>	✓			
<p>Perform etiquette/manner when closing the communication.</p>				<ul style="list-style-type: none"> • Perform smile & greetings. • Ask permission to leave or end the interaction.

General Comments

Three horizontal lines for writing general comments.

RESULT:

COMPETENT

NOT YET COMPETENT

(please check (✓))

Student:

Dimas Surya H.W
Name

31-12-2025
Date

Du Sani
Signature

Assessor:

Shawan TB
Name

31/12/25
Date

[Signature]
Signature

Supervisor:

Name

Date

Signature

Data Recorded:

Name

Date

Signature

Trakindo



PT Trakindo Utama

SERVICE PARTS REQUISITION

WORK ORDER NO.	A/C NO.	CUSTOMER SMKN 1 Singosari			MODEL 966 F	SERIAL NO. 3100 9XJ	
SEGMENT NO.	WARRANTY	<input type="checkbox"/>	UNIT DOWN	<input type="checkbox"/>	SCHEDULED	<input type="checkbox"/>	
						CATERPILLAR PARTS	
						YES	NO
CUSTOMER REPRESENTATIF NAME			CUSTOMER REPRESENTATION SIGNATURE			INITIAL SUPPLY PSO REF NO.	
DELIVER TO	DATE TIME OF DELIVERY	PREPARED BY			TOTAL PARTS ESTIMATE		
APPROVED BY Dimas Surya Hadi W.		DATE TIME APPROVED 31-12-2025					

ITEM	PART NUMBER	CHANGED TO	DESCRIPTION	QTY		APPROVAL	UNIT PRICE	EXTENDED PRICE	R E C D
				EST	ACT				
1	462-1171		Oil Filter	1	1				
2	2W-8952		Van belts	1	1				
3	8F-9844		Engine oil	1	1				
4	283-1709		Engine oil	1	1				
5	583-310		Coolant	2	2				
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
							TOTAL C/F		

* APPROVAL CODE:

- C - CUSTOMER REQUEST
- I - FOUND BY INSPECTOR
- R - FOUND DURING REPAIR

- O - APPROVED BY CUSTOMER
- X - NOT APPROVED BY CUSTOMER

966 F. & 966 F wheel loader II

1. Tuliskan spesifikasi engine 3306 yang digunakan pada unit 966 F meliputi

- ukuran engine Bore . 120,7 mm = 12,07 cm. ϕ

- jarak stroke 152,4 mm = 15,24 cm.

- engine displacement : 10,5L.

- Cylinder arrangement :

$$r = \frac{D}{2} = \frac{12,07}{2} = 6,035$$

$$V = \pi \times (6,035 \text{ cm})^2 \times 15,24$$

$$V \approx 1743,99 \text{ cm}^3$$

$$\frac{1,74399}{1000}$$

2. Tuliskan part no untuk a fuel transfer pump dan b Nozzle pada engine 3306 ini.

3. Tuliskan kode warna dan no strip pada Governor. Spring 819141 dan jika dikenakan beban $65,9 \pm 2,2 \text{ N}$ berapakah panjang spring after test.

4. Pada turbo schwitzer SQD berapakah:

a end play shaft untuk shaft baru).

b ketebalan thrust bearing.

c lubang housing baru

d diameter luar bearing baru.

5. Tuliskan torsi untuk bolt oil breather cap.

6. Pada engine 3306 dengan engine oil 10W-30 berapakah minimum oil pressure saat RPM engine 1600 dan oil temperature 99°C .

7. Transmission oil Pump pada unit 966 F termasuk pompa oli jenis dan memiliki section.

8. Berapakah jumlah clutch pada transmisi 966 F. dan saat third speed forward clutch no berapa apakah yg engaged.

9. Tuliskan jenis transmisi pada unit 966 F.

10. Tuliskan berat unit 966 F wheel loader.

- 1. - 120.7 mm (4.75 in)
- 152.4 mm (6.00 in)
- 10.5 L
- In line

2306

$$3,14 \times 12,07 \text{ cm}^2 \times 15,24 \text{ cm} = 6,971 \text{ cm}^3$$

$$= 0,006971 \text{ L}$$

$$r = \frac{D}{2} = \frac{12,07}{2} = 6,035$$

$$V = \pi \times (6,035 \text{ cm})^2 \times 15,24 \text{ cm}$$

$$= 1743,99$$

$$\frac{1743,99}{1000} = 1,74399$$

$$= 1,74399 \times 6 = 10,46394$$

2. 7N6831 & 8N7005 h.

3. One purple & 59.5 ± 1.0 mm h.

4. a. 0.114 ± 0.038 mm h.

b. 5.36 ± 0.03 mm h.

c. 24.994 to 25.006 mm h.

d. 24.882 to 24.892 mm h.

5. 14 ± 3 N·m h.

6. 200 kPa (29 psi) h.

7. Type gear dan memiliki 1 section h.

8. 6 Clutch, saat third speed forward clutch 4 & 2 engaged h.

9. ~~Roller shift / sliding roller~~ Transmission Hydraulic system
Power shift Transmission

10. ~~20,201 kg~~ 20,201 kg h.

1. a. SAE 15W40 h.

b. SAE 30

c. SAE 10W30 h.

2. a. 44 L

b. 308 L h.

c. 29 L

d. 140 L

13. Oil filter, Fan belts + additive coolant & oil engine.

14. 15 Ampere h.

15. ~~5N775~~ 4N3181 h.