

Demonstrate Selecting, Using and Maintaining a range of Precision and Non-Precision Tools to Accurately Measure

Skill Number CO-OP15GN105

Full Name: Aloysius Chaka S.D

No ID: _____

Validation Date: 17/12/2025

School: SMKN 1 Singesari

PERFORMANCE TASK:

Given some measuring tools, the student is requested to perform the following tasks on various measuring tools:

- Selecting
- Using
- Recording
- Maintaining

The student will be instructed to measure with a non-precision gauge such as: steel ruler, feeler gauge and precision tools such as vernier calipers, outside, inside and depth micrometer the dimension of some given parts. Literature and measuring tools will be made available but will not be provided directly to the student.

The student must be able to perform the following task:

- Demonstrate using various measuring tools on an engine or other system components.

Safety and Contamination Control must be always applied to this process.

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	✓			

Demonstrate Selecting, Using and Maintaining a range of Precision and Non Precision Tools to Accurately Measure

Skill Number TDP15GN105

Full Name: Aloysius Chelsea S.D SINSAP ID: _____
 Job Title: _____ Branch/Area: _____

PERFORMANCE TASK:

Given some measuring tools, the serviceman is requested to perform the following tasks:

- Selecting
- Using
- Recording
- Maintaining

various measuring tools.

The serviceman will be instructed to measure with a non-precision gauge such as: steel ruler, feeler gauge and precision tools such as vernier callipers, outside, inside and depth micrometer the dimension of some given parts. Literature and measuring tools will be made available, but will not be provided directly to the Serviceman.

The Serviceman must be able to perform the following task:

- Demonstrate using various measuring tools on an engine or other system components.
- Perform communication & etiquette manner

Safety and Contamination Control must be applied to this process at all times.

The Serviceman is requested to complete the Candidate Performance Guide form.

Time allowed: **Standard Hours (Refer to Standard Time Pricing)** _____ Hours

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

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

Tasks	Completed			Observation / Hint
	Yes	No	N/A	
Perform etiquette/manner when starting the job				
Meet the customer	✓			
Perform etiquette/manner when opening the interaction.	✓			• Perform smile & Introduce Service identity)
Explain the purpose of Serviceman's activity.	✓			
Ask permission to perform the job.	✓			

Tasks	Completed			Observation / Hint
	Yes	No	N/A	
Selecting, Using and Maintaining a range of Precision and Non Precision Tools				
1. Inspect the measuring tool before using	✓			Visual inspection of the meas wear, cracks, damage
2. Clean tool and component before using	✓			Using of consumables CC tool Tools should be calibrated procedure
3. Calibrate measuring tools before using	✓			Thread identification gauge pressure gauge without toleran
4. Measure component use measuring tools with tolerance allowance 0.5 mm (0.02" or 1/25") for non-precision measuring tools and 0.025 mm (0.001") for precision measuring tools.	✓			Component and tooling are ch assembled as given procedur
5. Tasks completed without damage to equipment and tools	✓			



6. Equipment and tooling is cleaned and returned to its correct location	✓			Cleaned and stored equipment tools on the right place.
7. Record the reading of the measurements	✓			Write the actual reading on the paper given by the assessor
Documentation:				
Take picture if needed				

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
All relevant documentation completed correctly, and approved by customer (if required).	✓			<ul style="list-style-type: none"> Completing the Task List Create Field Operation Report/Daily Record Activity/Job Time Card 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/Rs-Work Analysis Report, if required.

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Safety				
Using PPE related to the job	✓			
Follows relevant Workplace Safety Guidelines (LOTO, Safety Equipment)	✓			
State and follow Safety Precautions	✓			Service man must follow Safety Procedure refer to Service Manual or SIS related to job
Service man completes job without accident due to incorrect procedure using hand tools.	✓			<ul style="list-style-type: none"> Correct serviceman position Correct hand tool related to the job
Tasks completed without damage equipment and tools	✓			

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

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Perform etiquette/manner after completing the job				
Explain the action taken (from content of report) and also the result of the job activity.	✓			Explain clearly
Advise customer the tips or method for future maintenance and operation.	✓			Advise clearly
Clarify or ensure that customer understands clearly.	✓			Perform clarifying 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"> Perform smile & Ask permission and the interact

Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Perform nonverbal expression and communication				
Perform nonverbal expression and communication.	✓			<ol style="list-style-type: none"> Maintain eye contact with customer Display confident posture. Speak with appropriate voice volume. Display appropriate facial expression (smile/serious/curious/ concerned) Display appropriate gesture explaining the information.



General Comments

Pakarni perhitungan betul-betul.

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

Service man: Alvius chala S.D Name Date 24/1/12 Signature

Assessor: Shiara Name Date 24/1/12 Signature

Supervisor: Name Date Signature

Data Recorded: Name Date Signature

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	Completed			Observation / Hints
	Yes	No	N/A	
Selecting, Using and Maintaining a range of Precision and Non-Precision Tools				
1. Inspect the measuring tool before using	✓			
2. Clean tool and component	✓			
3. Calibrate measuring tools before using	✓			
4. Measure component use measuring tools with tolerance allowance 0.5 mm (0.02" or 1/25") for non-precision measuring tools and 0.025 mm (0.001") for precision measuring tools.	✓			
5. Tasks completed without damage to equipment and tools	✓			
6. Equipment and tooling are cleaned and returned to its correct location	✓			
7. Record the reading of the measurements	✓			
Documentation:				
Take picture if needed				

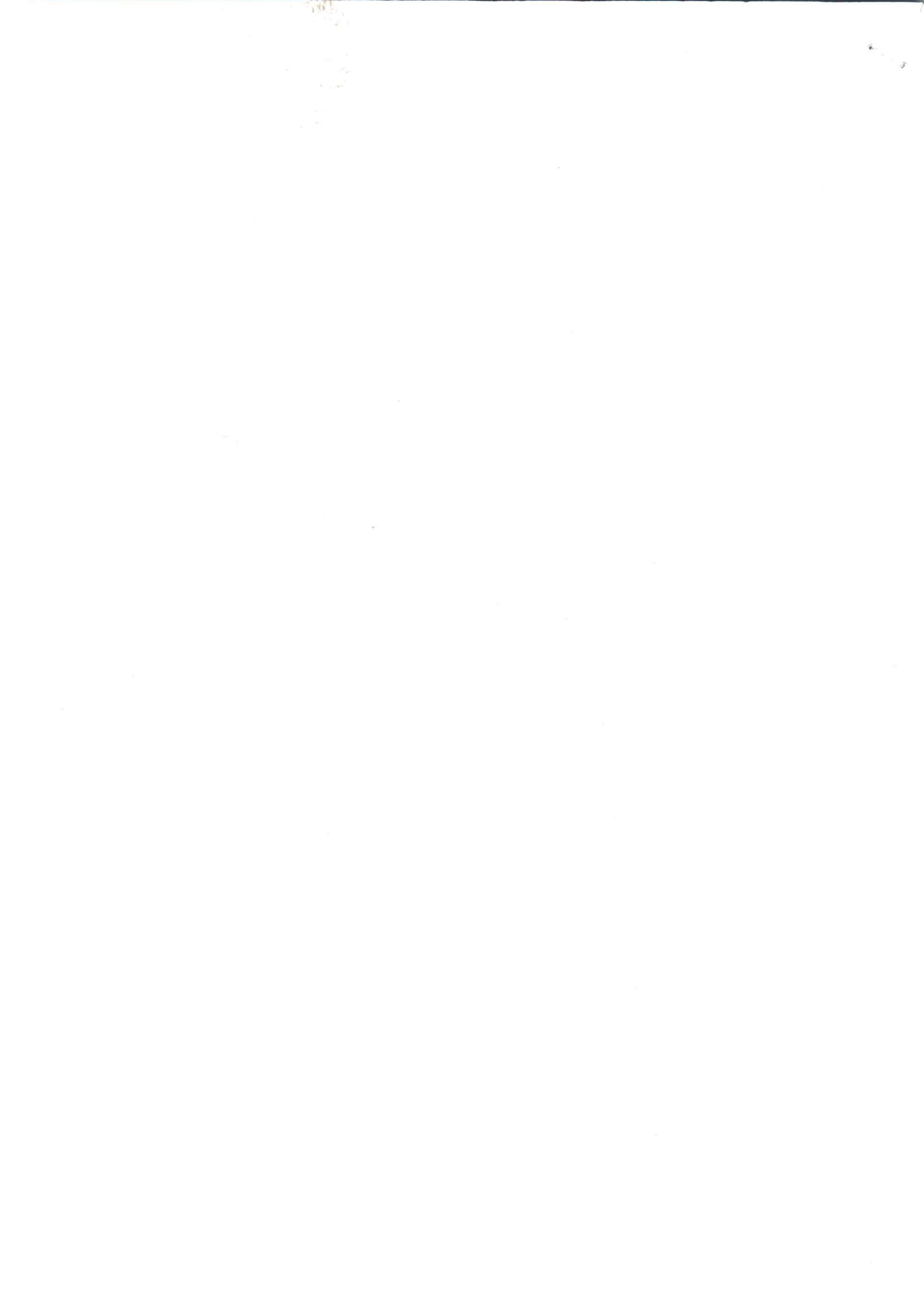
Tasks	Completed			Observation / Hints
	Yes	No	N/A	
Perform close the job by ensuring all systems or conditions is in the standard condition				
Ensure all systems or conditions are in standard condition.	✓			

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 PPE related to the job	✓		
Follows relevant Workplace Safety Guidelines (LOTO, Safety Equipment)	✓		
State and follow Safety Precautions	✓		
Serviceman completes job without accident due to incorrect procedure using hand tools.	✓		
Tasks completed without damage equipment and tools	✓		

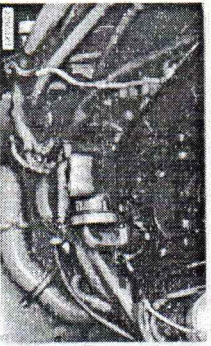
Tasks	Completed		Observation / Hints
	Yes	No	
Contamination Control			
Environmental Practices & Housekeeping	✓		

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



SMCS - 1302, 1304

Remove Oil Pump



preparatory step:

a) remove oil pan

1. Remove oil pump.

Install Oil Pump

1. Install oil pump.

concluding step:

a) install oil pan

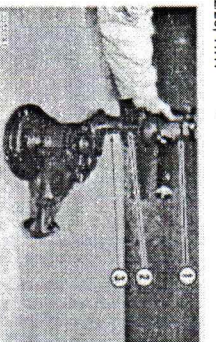
Disassemble Oil Pump

Tools Required		A
887548	Push Puller	1
887550	Leg	2
887558	Adapter	2
887563	Handle	1
8HG64	Ratchet Box Wrench	1

preparatory step:

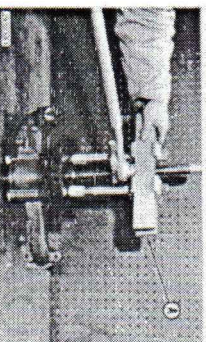
a) remove oil pump

1. Remove the oil pump suction bell, screen, and elbow.

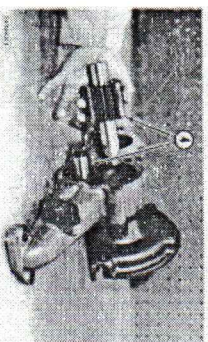


2. Remove the bypass valve body (1), spring (2) and plunger (3).

3. Remove the baffle.



4. Remove the drive gear retaining nut, washer, and cotter pin. Using tool setup (A), remove the oil pump drive gear. Remove key from shaft.

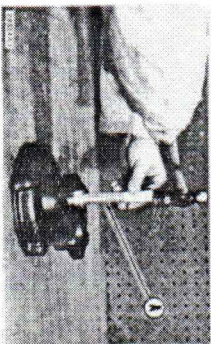


5. Remove the cover assembly. Remove the oil pump gears (4). Separate the cover assembly (5) from pump body. Remove bearings from cover assemblies.

Assemble Oil Pump



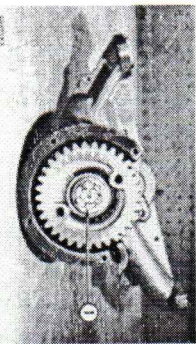
Tools Required		A
1P529	Handle	1
1P467	Drive Plate	1
1P468	Drive Plate	1



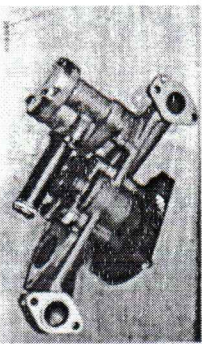
1. Using tool setup (A), install the bearings in the cover assemblies with oil holes in bearings aligned with oil holes in cover assemblies.

2. Position the front cover assembly on body assembly. Lubricate the gear and shaft assemblies, and install them in body assembly.

3. Position the rear cover assembly on body assembly, and install retaining bolts and locks.



4. Install the key and gear on shaft. Install gear retaining nut and washer. Tighten the nut (1) to 100 lb. ft. (13,83 mkg) plus amount to align cotter pin holes. Install cotter pin.



5. Install the baffle, retaining bolts, and locks.

6. Install the bypass valve body, plunger and spring.

7. Install the suction bell, screen and elbow.

concluding step:

a) install oil pump

PCP-00022950

2025/12/17

04:10:30+07:00

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ANALISIS LINGKUNGAN KESELAMATAN KERJA / JOB SAFETY ENVIRONMENT ANALYSIS

Pekerjaan / Task	DA Gear Pump 459667	Nomor JSEA / JSEA Number	Halaman / Page	1	Dari / of	2
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Tanggal Pembuatan JSEA / Date of JSEA	Departemen / Dept	Tempat Kerja / Work Location
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Disusun Oleh / Compiled By	TTD Sign	Review Oleh / Reviewed By	TTD Sign	Atasan Superior	TTD Sign
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Apakah Anda sudah terlatih untuk melakukan pekerjaan ini? / Are you properly trained to complete these task? Ya / Yes Tidak / No

Apakah Anda memerlukan peralatan LOTO? / Are you need LOTO Equipments? Ya / Yes Tidak / No

Apakah Anda mengetahui ERP/MERP dari pekerjaan yang sedang dilakukan? Ya / Yes Tidak / No *Jika tidak, silahkan tambahkan dalam urutan langkah tugas diawal*

Kondisi Lingkungan / Environmental Conditions	Cuaca / Weather	Medan / Terrain
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Pengendalian Sumber Bahaya / Hazardous Energy Control	<input type="checkbox"/> Listrik / Electrical	<input checked="" type="checkbox"/> Gravitasi (Benda jatuh, tertimpa) / Gravitation (Falling objects, struck down)	<input type="checkbox"/> Pneumatik / Pneumatic
	<input type="checkbox"/> Hidraulik / Hydraulic	<input type="checkbox"/> Mekanis / Mechanical	<input type="checkbox"/> Panas / Thermal

APD yang diperlukan / Required PPE	<input checked="" type="checkbox"/> Helm / Safety Helm	<input type="checkbox"/> Pelindung Muka / Face shield	<input checked="" type="checkbox"/> Kacamata / Safety Glass
	<input checked="" type="checkbox"/> Sarung Tangan / Hand Gloves	<input type="checkbox"/> Pelindung Pernafasan / Respiratory Protection	<input type="checkbox"/> Perlindungan Kejatuhan / 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 dipertimbangkan dalam mengidentifikasi bahaya / These to consider in identify hazards :

<p>1 Bahaya Keselamatan : Kondisi tidak aman yang dapat menyebabkan injury atau kematian seperti terpelesep, terpeleset/terjatuh, tertimpa dll.</p> <p><i>Safety Hazard : unsafe conditions that can cause injury or even death, such as spill/falls, pinch point, struck by, etc.</i></p>	<p>4 Bahaya Biologi : Patogen yang ditularkan melalui darah, jamur, tanaman/serangga/hewan.</p> <p><i>Biological Hazards : bloodborne pathogens, mold, Plant/insect/Animals</i></p>
<p>2 Bahaya Fisik : Listrik, Api/ledakan, Kebisingan, Radiasi, Panas, Tekanan, Terjepit, Tersandung/Terjatuh, Tertimpa, Getaran.</p> <p><i>Physical Hazards : Electrical, Fire/Explosion, Noise, Radiations, Thermal, Pressure, Pinch Point, Slips/Falls, Struck by, Vibration.</i></p>	<p>5 Bahaya Ergonomi : Gerakan berulang-ulang, beban yang berlebihan, Postur Janggal, Durasi kerja, Desain area kerja.</p> <p><i>Ergonomic Hazards : Repetitions, Forcefull extention, Awkward Posture, Duration, Work area desain.</i></p>
<p>3 Bahaya Kimia : Terhirup, terkena kulit, injeksi, tertelan, terserap.</p> <p><i>Chemical Hazards : Inhalation, skin contact, injection, ingestion, absorption.</i></p>	<p>6 Bahaya Organisasi : stres atau bahaya terkait dengan masalah tempat kerja yang menyebabkan efek jangka panjang atau pendek, beban kerja yang berat dan kekerasan ditempat kerja.</p> <p><i>Organizational hazards : stressors or hazards associated with workplace issues that cause long or short term effects heavy workloads, stressful interactions and workplaces violence.</i></p>

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 kaki tersandung Forklift	1.1.1 Perhatikan jalan saat melangkah
			1.1.2 menggunakan safety shoes
		1.2 kursi memasuki area kerja	1.2.1 Singkirkan kursi
			1.2.2 memakai safety shoes
2	Prepare the tools	2.1 Tangan terjepit toolbox	2.1.1 Berhati-hati saat menutup toolbox
			2.1.2 Gurakan safety gloves
		2.2 kaki terjepit roda toolbox	2.2.1 Hindari titik jepit
			2.2.2 Pakai safety shoes
	2.3 Tersandung barang berserakan	2.3.1 Ambil jalan yang lebih aman	
		2.3.2 memakai safety shoes	
	2.4 Toolbox terbentur barang berserakan	2.4.1 Bersihkan dan tata barang	
		2.4.2 Pakai safety gloves dan shoes	
3	Doing disassambel the gear pump	3.1 Tangan terjepit	3.1.1 Hindari titik jepit saat pelepasan
			3.1.2 menggunakan safety gloves
	3.2 kaki tertimpa komponen	3.2.1 Hati-hati saat melepas komponen	

ANALISIS LINGKUNGAN KESELAMATAN KERJA / JOB SAFETY ENVIRONMENT ANALYSIS

Pekerjaan
Task

DA Gear Pump 459667

Nomor JSEA
JSEA Number

Halaman
Page

2

Dari
Of

2

No	Urutan Dasar Langkah Tugas / Job Steps (* Maksimum 15 Langkah / Maximum 15 Steps)	Bahaya Yang Terkait / Potential Hazard(s)	Tindakan Perbaikan / Recommended Action
			3.2.2 Pakai safety shoes
4.	Doing measure the gear pump	4.1 Tangan tergores measuring tools 4.2 Tangan terjepit 4.3 kaki tertimpa measuring tools	4.1.1 berhati-hati saat pengukuran 4.1.2 Memakai safety gloves 4.2.1 Hindari titik jepit saat pengukuran 4.2.2 Fokus saat pengukuran 4.2.3 gunakan safety gloves 4.3.1 Simpan alat dengan benar 4.3.2 menggunakan safety shoes
5.	Doing Assembly the gear pump	5.1 Tangan terjepit komponen saat pemasangan 5.2 Tangan terjepit tools 5.3 Oil berceceran saat pelumasan	5.1.1 Pastikan tangan diluar titik jepit 5.1.2 Fokus saat pemasangan 5.1.3 Pakai safety gloves 5.2.1 menghindari titik jepit 5.2.2 gunakan safety gloves 5.3.1 Bersihkan oil menggunakan absorbent pad
6.	House keeping	6.1 kaki tersandung tools 6.2 kaki tertimpa tools 6.3 terpeleset oil berceceran 6.4 Toolbox terbentur barang bersarakan	6.1.1 Rapikan tools selesai pemakaian 6.1.2 menggunakan safety shoes 6.2.1 Pastikan tools sudah pada tempatnya 6.2.2 gunakan safety shoes 6.3.1 bersihkan oil sampai bersih dari lantai 6.3.2 memakai safety shoes 6.4.1 Pindahkan barang yang berserakan

Bukti sosialisasi / Evidence of socialization :

No	Nama / Name	TTD / Sign
1		
2		
3		
4		
5		

No	Nama / Name	TTD / Sign

No	Nama / Name	TTD / Sign

3. 1. 1950

The first part of the report
 describes the general situation
 in the country and the
 progress of the work
 during the year. It
 also mentions the
 results of the
 investigations and
 the conclusions
 drawn from them.
 The second part
 contains a list of
 the publications
 issued during the
 year. The third
 part is a list of
 the names of the
 persons who have
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 the work during
 the year. The
 fourth part is a
 list of the names
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