Name of Assessed Person: **Registration:**

UNIT MEA309: Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components					
1. Inspect hydro-mechanical systems and components.	a. Hydraulic systems - hydraulic accumulators, filters, reservoirs, valves, pumps, motors, actuators, regulators, and direct reading gauges	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	b. Hydraulic system rigid and flexible pipelines, hoses, and fittings	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	c. Fuel systems - filters, valves, pumps, and rigid and flexible storage cells/tanks	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	d. Fuel system rigid and flexible pipelines, hoses, and fittings	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

1.1 Isolation tags already attached to the system or related systems are checked and aircraft configured for safe system inspection and operation in accordance with specified procedures.

1.2 Hydro-mechanical system and system components are visually or physically checked for external signs of defects in accordance with specified procedures while observing all relevant work health and safety (WHS) requirements, including the use of material safety data sheets (MSDS) and items of personal protective equipment (PPE).

Name of Assessed Person: **Registration:**

UNIT MEA309: Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components					
2. **Inspect Landing Gear Systems and Components.**	a. Retraction Systems ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	b. Steering Systems ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	c. Brake Systems, including anti-skid where applicable ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	d. Wheel Assemblies, Skids and Floats	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

2.1 Isolation tags already attached to the system or related systems are checked and aircraft configured, including jacking where necessary, for safe system inspection and operation in accordance with specified procedures.

2.2 Landing gear system and system components are visually or physically checked for external signs of defects in accordance with specified procedures while observing all relevant WHS requirements, including the use of MSDS and PPE

**** Note: Coverage of Retraction, Steering and Brake Systems, Brake Units and Struts / Oleos are not required where the aircraft is Rotary Wing and is fitted with Skids or Floats**

Name of Assessed Person: **Registration:**

UNIT MEA309:	**Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components**				
2. Cont'd **Inspect Landing Gear Systems and Components.**	e. Brake Units ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	f. Struts/ Oleos ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

2.1 Isolation tags already attached to the system or related systems are checked and aircraft configured, including jacking where necessary, for safe system inspection and operation in accordance with specified procedures.

2.2 ***Landing gear system and system components*** are visually or physically checked for external signs of defects in accordance with specified procedures.

**** Note: Coverage of Retraction, Steering and Brake Systems, Brake Units and Struts / Oleos are not required where the aircraft is Rotary Wing and is fitted with Skids or Floats**

Name of Assessed Person: **Registration:**

UNIT MEA309: Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components					
3. **Test Hydro-mechanical and Landing Gear Systems**	a. Hydraulic Systems and Components	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	b. Fuel Systems and Components	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	c. Retraction Systems ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	d. Steering Systems ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

3.1 The aircraft and hydro-mechanical systems are correctly prepared, in accordance with specified procedures, for the application of power.

3.2 Power is applied, and system functionally tested, in accordance with specified procedures, for evidence of malfunction or leaks.

3.3 System calibration or adjustments are performed in accordance with specified procedures.

**** Note: Coverage of Retraction, Steering and Brake Systems are not required where the aircraft is Rotary Wing and is fitted with Skids or Floats**

Name of Assessed Person: **Registration:**

UNIT MEA309: Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components					
3. Cont'd **Test Hydro-mechanical and Landing Gear Systems**	e. Brake Systems, including anti-skid where applicable ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

3.1 The aircraft and hydro-mechanical systems are correctly prepared, in accordance with specified procedures, for the application of power.

3.2 Power is applied, and system functionally tested, in accordance with specified procedures, for evidence of malfunction or leaks.

3.3 System calibration or adjustments are performed in accordance with specified procedures.

**** Note: Coverage of Retraction, Steering and Brake Systems are not required where the aircraft is Rotary Wing and is fitted with Skids or Floats**

Name of Assessed Person: **Registration:**

UNIT MEA309: Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components					
4. **Prepare for Troubleshooting**	a. Hydraulic Systems and Components	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	b. Fuel System and Components	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	c. Retraction Systems ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	d. Steering Systems ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

4.1 Relevant maintenance documentation and modification status, including system defect/ service difficulty reports where relevant, are interpreted to identify an unserviceability.

**** Note: Coverage of Retraction, Steering and Brake Systems are not required where the aircraft is Rotary Wing and is fitted with Skids or Floats**

Name of Assessed Person: **Registration:**

UNIT MEA309: Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components					
4. Cont'd **Prepare for Troubleshooting**	e. Brake Systems, including anti-skid where applicable ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

4.1 Relevant maintenance documentation and modification status, including system defect/ service difficulty reports where relevant, are interpreted to identify an unserviceability.

**** Note: Coverage of Retraction, Steering and Brake Systems are not required where the aircraft is Rotary Wing and is fitted with Skids or Floats**

Name of Assessed Person: **Registration:**

UNIT MEA309: Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components					
5. Troubleshoot Hydro-mechanical and Landing Gear Systems	a. Hydraulic Systems and Components	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	b. Fuel Systems and Components	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	c. Retraction Systems ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

5.1 Available information from maintenance documentation and inspection and test results is used, where necessary, to assist in fault determination.

5.2 Maintenance manual fault diagnosis guide and logical processes are used to ensure efficient and accurate troubleshooting to line replacement level.

5.3 Specialist advice is obtained, where required, to assist with the troubleshooting process.

5.4 Hydro-mechanical and landing gear system faults are located, and the causes of the faults are clearly identified and correctly recorded in maintenance documentation, where required.

5.5 Fault rectification requirements are determined to assist in planning the repair or adjustment.

**** Note 1: (Coverage of Retraction, Steering and Brake Systems are not required where the aircraft is Rotary Wing and is fitted with Skids or Floats)**

**** Note 2:** (**Troubleshooting** involves the use of fault-finding charts or similar to line replacement level)

Name of Assessed Person: **Registration:**

UNIT MEA309: Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components					
5. Cont'd Troubleshoot Hydro-mechanical and Landing Gear Systems	d. Steering Systems ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No
	e. Brake Systems, including anti-skid where applicable ***(may be omitted if not applicable to enterprise)***	No. of Entries	1	2	3
		Tail / Job No.			
		LAME Sign.			
		Date			
		Simulated	Yes No	Yes No	Yes No

Performance Criteria:

5.1 Available information from maintenance documentation and inspection and test results is used, where necessary, to assist in fault determination.

5.2 Maintenance manual fault diagnosis guide and logical processes are used to ensure efficient and accurate troubleshooting to line replacement level.

5.3 Specialist advice is obtained, where required, to assist with the troubleshooting process.

5.4 Hydro-mechanical and landing gear system faults are located, and the causes of the faults are clearly identified and correctly recorded in maintenance documentation, where required.

5.5 Fault rectification requirements are determined to assist in planning the repair or adjustment.

**** Note 1: (Coverage of Retraction, Steering and Brake Systems are not required where the aircraft is Rotary Wing and is fitted with Skids or Floats)**

**** Note 2:** (**Troubleshooting** involves the use of fault-finding charts or similar to line replacement level)

Name of Assessed Person: **Registration:**

Certification of Underpinning Knowledge and Skills to Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components

A person cannot be assessed as competent until it can be demonstrated to the satisfaction of the workplace assessor that the relevant elements and performance criteria of this unit of competency are being achieved under routine supervision on each type of system and on at least one (1) component from each of the following: ***(Groups 2a, b, c, e, f and Groups 3 to 5, c to e) may be omitted where they are not Applicable to the Enterprise).***

- ***Hydraulic Systems*** – a system and at least one component from each of the variables.
- ***Fuel Systems*** – a system and at least one component from each of the variables.
- ***Landing Gear Components*** – one each of the variables.
- ***Steering systems*** – a system and at least one component from each of the variables.
- ***Brake systems, including anti-skid, where applicable*** – a system and at least one component from each of the variables.

This shall be established via the records in the Log of Industrial Experience and Achievement or, where appropriate, an equivalent Industry Evidence Guide.

UNIT MEA309: Inspect, Test and Troubleshoot Aircraft Hydro-Mechanical and Landing Gear Systems and Components	**DATE/ MTO STAMP**
Evidence has been confirmed of the attainment of the following pre-requisite units of competency (as they are related to attainment of the elements of competency specified in this unit). **398**	
Evidence has been confirmed of the knowledge requirements for this unit as delivered by a CASR 147 Approved Organisation. **OR** Assessment has been conducted to determine that the underpinning knowledge and skills have been achieved in accordance with the Competency Unit.	

Certification of Unit Completion

I certify that I have reviewed the certification of the elements for this competency unit and that all of the competency unit requirements have been met.

Signed: _____ **Assessor No.** _____ **MTO:** _____ **Date:** _____