

1. Title	Reference lines of sight and planes establishing and maintaining by using optical tooling
2. Code	EMAMWS410A
3. Range	Establish and maintain reference lines of sight and planes by optical tooling are usually carried out on the aircraft in the hangar.
4. Level	4
5. Credit	9
6. Competency	<p style="text-align: center;"><u>Performance Requirement</u></p> <p>6.1 Prepare to use optical tooling</p> <ul style="list-style-type: none"> ◆ Able to review the maintenance documents and procedures to decide on maintenance task. ◆ Able to obtain resources and check them for serviceability or status in accordance with the procedures, e.g. tools, equipment, safety equipment, publications. ◆ Able to setup optical tooling in accordance with the procedures. <p>6.2 Align and measure items and locate positions</p> <ul style="list-style-type: none"> ◆ Able to align and evaluate the machine tools in accordance with the procedures, e.g. level, run out, wear ◆ Able align the work positioned on machine tools in accordance with the procedures, e.g. drill presses, lathes, milling machines. ◆ Able to establish the jig positions in accordance with the procedures. ◆ Able to locate the specific positions in accordance with the procedures, e.g. attachment points on structures being fabricated, hard points on damaged structures, relative surfaces and moving parts on machine tools.

	<ul style="list-style-type: none">◆ Able to establish the position of specific points where direct measurements cannot be made,e.g. on and along compound angles, on different planes.◆ Able to perform inspections in accordance with the procedures,e.g. independent, duplicate, progressive <p>6.3 Prepare area for next task</p> <ul style="list-style-type: none">◆ Able to understand the legislative requirements, aviation authority requirements, manufacturers' publications and the maintenance organizations' approved maintenance practices and requirements in carrying out the task.◆ Able to complete the task within the stipulated duration.◆ Able to return the work area in a condition enabling the next task to begin.◆ Able to check the resources for serviceability and return them in accordance with the procedures,e.g. tools, equipment, safety equipment, publications.◆ Able to complete the documentation in accordance with the procedures,e.g. labels, work cards, release notes, log books, certification.
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7. Assessment Criteria	The integral outcome requirement of this UoC is: (i) Able to establish and maintain reference lines of sight and planes in three dimensions including establishing the position of a specific point on a structure or in space, establishing the position of jig components, aligning machine tools, aligning work positioned on machine tools, and measuring structures using precision optical tooling such as theodolites, telescopes, prisms, and mirrors.
8. Remarks	Ref: NZQA - 4031