

Overview

This unit covers the skills and knowledge you will need to carry out product assembly operations that bring together a number of components in a logical sequence to construct an assembly or sub-assembly.

This will involve carrying out the assembly operation according to defined operating procedures. You will be expected to monitor the assembly operation, ensuring that the completed assemblies are to the required specification. Meeting production targets will be an important issue and your production records must show consistent and satisfactory performance.

Your responsibilities will require you to comply with organisational policy and procedures for the assembly activities undertaken, and to report any problems with the assembly activities to the appropriate people. You will be expected to work to instructions, taking personal responsibility for your actions and the quality and accuracy of the work that you produce. You will also be expected to complete any necessary documentation.

Your underpinning knowledge will be sufficient to provide a sound basis for your work, and to adopt an informed approach to applying the required work instructions and assembly procedures. You will have an understanding of the assembly techniques used, and their application, and will know about the equipment, components and consumables in adequate depth to provide a sound background for carrying out the activities to the required specification.

You will understand the safety precautions required when working with the assembly tools and equipment. You will be required to demonstrate safe working practices throughout, and will understand the responsibility you owe to yourself and others in the workplace.

This unit on product assembly involves:

1. using the correct equipment for the assembly operations
2. carrying out the product assembly in the correct sequence
3. monitoring the assembly operations
4. reporting problems to the appropriate person
5. completing any necessary documentation
6. working in ways which maintain the safety of yourself and others

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Carrying out product assembly operations

Performance criteria

You must be able to:

- P1 work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines
- P2 ensure you have the correct job instructions and any relevant assembly procedure and quality specifications
- P3 check that you have all the necessary components, and position and align the components correctly
- P4 secure the components in position using the specified fastening device / method
- P5 use appropriate tools and equipment during the assembly operations
- P6 monitor the assembly operation and identify any problems that occur
- P7 report any problems immediately to the appropriate person
- P8 produce assembled product/s which comply with the specification and quality requirements
- P9 work to achieve your assembly targets
- P10 deal appropriately with finished assemblies and complete any necessary documentation

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Carrying out product assembly operations

Knowledge and understanding

You need to know and understand:

- K1 what are the relevant health and safety requirements of the work area in which you are carrying out the assembly operations
- K2 what are the specific safe working practices, assembly procedures and environmental regulations that need to be observed
- K3 what are the hazards associated with carrying out the assembly operations
- K4 what actions need to be taken in case of emergencies
- K5 what personal protective equipment needs to be used during the assembly activities and where can it be obtained
- K6 how to make sure you have the necessary job instructions, operating procedures and assembly specifications
- K7 what tools and equipment are used for the assembly operation and how to check that they are in a safe and usable condition
- K8 what are the specific assembly operations to be performed
- K9 why it is important to follow the specified assembly sequence and procedure at all times
- K10 what methods are used to align and position the components prior to fixing them into position
- K11 what methods are used to fix the components securely in position
- K12 what problems can occur in the assembly operation, how to identify them and who to report them to
- K13 why it is important to report problems quickly
- K14 how to check the quality of the assembled component/product against the required quality standards
- K15 what documentation may need to be completed
- K16 what your responsibilities are with regard to the reporting lines and procedures in your working area
- K17 who are the appropriate people and what are their responsibilities within your working area

Additional Information

Scope/range related to performance criteria

You must be able to:

1. Follow the relevant assembly procedures and safety requirements according to **all** of the following:
 - 1.1. health and safety regulations
 - 1.2. assembly equipment / tool operating instructions
 - 1.3. safe working practices
 - 1.4. company standards and procedures
 - 1.5. assembly instructions

2. Carry out assembly operations using **one** of the following methods:
 - 2.1. hand assembly operations
 - 2.2. machine assembly operations
 - 2.3. fully automated assembly operations
 - 2.4. combined assembly operations

3. Carry out checks of the assembly to include the following:
 - 3.1. completeness of the assembly
and **one** other check from the following:
 - 3.2. positional accuracy of components
 - 3.3. component security
 - 3.4. correct orientation of components
 - 3.5. freedom from damage or foreign objects
 - 3.6. component alignment

4. Report problems to the appropriate person to include **one** of the following:
 - 4.1. supervisor
 - 4.2. team leader
 - 4.3. quality control

5. Work to achieve production targets for **both** of the following:
 - 5.1. output
 - 5.2. quality

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