# WORKING SAFELY IN ENGINEERING

**Unit Summary:** This unit is designed to introduce learners to health and safety issues in engineering. It will help them to be aware of the potential hazards they may be exposed to in engineering environments and cope with and reduce risks.

| | |
|---|---|
| Learner Name: | |

## Unit 1: Working Safely In Engineering

This unit is designed to introduce learners to health and safety issues in Engineering. It will help them to be aware of the potential hazards they may be exposed to in engineering environments and cope with and reduce risks.

## Assessment Criteria: 1.1

**Learning Outcome:** Know about statutory regulations and organisational requirements.

Explain the difference between a general regulation and an engineering specific regulation.

## 1.1 Continued

List three general regulations and two specific regulations that have a statutory requirement under relevant sections of the Health and Safety at Work Act 1974. (You may use the HSE Website to locate these regulations). (www.hse.gov.uk).

## 1.1 Continued

List three regulations that would govern the work carried out in this workshop and explain how we conform to these regulations.

## Assessment Criteria 1.2

List organisational general practices and procedures relevant to an engineering environment.

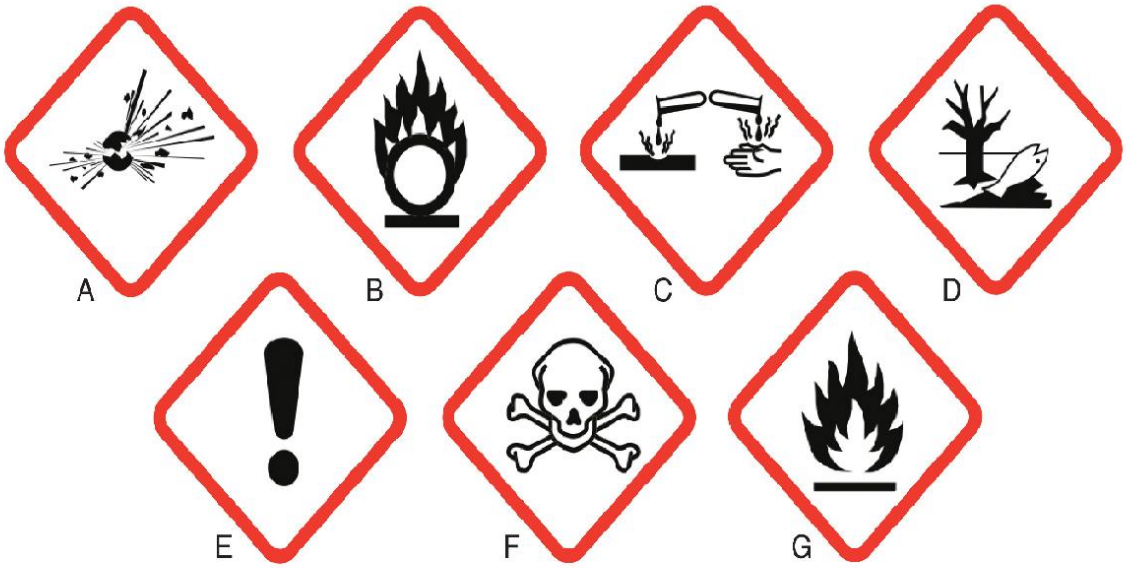
## 1.2 Continued

Give an example of how these practices and procedures can be effictivley communicated to a workforce.

## 1.2 Continued

Outline information you would expect to see in a relevant engineering code of practice or procedure. (For example a COSHH Policy).

Identify the seven warning signs for substances that are potentially harmful and explain each warning.




**A –**

**B –**

**C-**

**D-**

**E-**

**F-**

**G-**

## Assessment Criteria 1.4

Describe when appropriate sources of information would assist compliance with statutory regulations and organisational requirements.

Example – You have been tasked with the removal and service of a hydraulic ram however you are unsure of the nature of the substance encased. Where could you find the information on storage, discarding and PPE needed to carry out the task. (Give examples below)

## Assessment Criteria 2.1

**Learning Outcome:** Know about accident and emergency procedures.

Describe the correct procedure for a given accident involving injury to self or others.

Incident – Whilst using an abrasive wheel a colleague has cut their hand, although the cut doesn't look deep they are bleeding and clearly in some discomfort, you are not the nominated first aider how would you help them? Describe in detail.

## 2.1 Continued

Below draw a detailed map of the building including emergency exits, emergency call points and fire extinguishers.

## Assessment Criteria 2.2

Describe the correct procedure when an emergency alarm is sounded.

Incident – You are working in the workshop when you hear an emergency alarm. Explain in as much detail as possible your actions.

## 2.2 Continued

Incident – You are using an abrasive wheel to grind and contour a piece of metal when you realise the hot filings have began to smoluder and a small fire has broken out. Below explain the following:

A) When would you use a fire extinguisher to tackle a small fire?

B) How would you raise the alarm?

C) Where would you exit the building?

D) Where would you go on exiting the building?

E) List in what order you would do these things.

## Assessment Criteria 3.1

**Learning Outcome:** Know about controlling hazards in the engineering workplace.

Identifying hazards in the engineering workplace.

A) What is a hazard?

B) What is a risk?

C) List three examples of a hazard in an engineering workshop.

## Assessment Criteria 3.2

Identify the control measures to be used to minimise risk for a given engineering environment.

Explain below methods of controlling risks in a workplace (Give examples).

## 3.2 Continued

You are going to carry out a task specific risk assessment based on a relevant engineering task. Give a minimum of three associated hazards and their control measures.

## Risk Assessment

| **Company :** | **Date of assessment:** | **REF** | **STATUS** |
|---|---|---|---|
| **Site / Department:** | **Area / Location:** | | |

| Description of work activity being assessed: |
|---|
| |

| Who exposed: | | Type of assessment: | |
|---|---|---|---|
| Employees | ☐ | Initial | ☐ |
| Contractors | ☐ | Periodic | ☐ |
| Members of the public | ☐ | Operational review | ☐ |

| Assessment of risk with no control measures | High ☐ | Medium ☐ | Low ☐ |
|---|---|---|---|

| | |
|---|---|
| | |

| Associated hazards: | Control measures: |
|---|---|
| | |
| | |
| | |
| | |

| | | | | | |
|---|---|---|---|---|---|
| **Assessment of risk with control measures** | **High** | ☐ | **Medium** | ☐ | **Low** ☐ |

## Assessment Criteria 4.1

**Learning Outcome:** Be able to apply safe working practices and procedures.

Prepare yourself ready to carry out an activity in the engineering workshop.

Scenario One – You are about to start work to install an electrical circuit, how would prepare for this task in regards to tools, clothing and instruments.

## 4.1 Continued

Scenario Two – You are about to begin work sanding down and re painting a chassis.Explain how would you prepare yourself for this task.

## Assessment Criteria 4.2

Work responsibly and use correct manual handling techniques when maintaining a safe working Area.

A) Explain your responsibilities when in a work environment including your responsibilities to others and how you ensure you are working responsibly.

## 4.2 Continued

B) Explain the practices used in order to maintain a safe working area.

## 4.2 Continued

C) Identify the regualtion covering maunal handling in the work environment.

D) When manually handling a load which aspects must be considered? Explain in as much detail as possible.

E) Bullet point below good manual handling techniques.

**Photographic evidence to support assessment criteria**

## Tutor Feedback

| **AC –** Know about statutory regulations and organisational requirements. | | | |
|---|---|---|---|
| **1.1**<br><br>**Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **1.2**<br><br>**Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **1.3**<br><br>**Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **1.4**<br><br>**Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

| **AC –** Know about accident and emergency procedures | | | |
|---|---|---|---|
| **2.1** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **2.2** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

| **AC –** Know about controlling hazards in the engineering workplace | | | |
|---|---|---|---|
| **3.1** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **3.2** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

| **AC –** Be able to apply safe working practices and procedures |
|---|
| **4.1** |

| | | | |
|---|---|---|---|
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **4.2** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

## DEVELOPING SKILLS IN WIRING ELECTRICAL

## CIRCUITS AND COMPONENTS

**Unit Summary:** This unit introduces learners to the skills required to carry out the wiring and terminating of electrical circuits and components. This unit will provide the opportunity to think about the necessary precautions and safety requirements when preparing for wiring activities by learning about components, cables, tools and equipment when using appropriate terminations.

| Learner Name: | |
|---|---|

| **Name of Student:** | |
|---|---|

**Unit 8: Developing skills in Wiring Electrical Circuits & Components**

**Aim:** This unit introduces learners to the skills required to carry out the wiring and terminating of electrical circuits and components. This unit will provide the opportunity to think about the necessary precautions and safety requirements when preparing for wiring activities by learning about components, cables, tools and equipment when using appropriate terminations.

## Assessment Criteria: 1.1

**Learning Outcome:** Take precautions ready to carry out an electrical wiring activity.

Explain why it is important to prepare the work area ready for an electrical installation. Give examples of how you would do this. (Tidying work area, Locking off Procedure).

## Assessment Criteria: 1.2

**Learning Outcome:** Prepare components, cables, tools and equipment ready for an electrical wiring activity.

Explain how you would prepare electrical components such as wiring accessories, cable and tools.
(Draw a circuit diagram to highlight materials, tools, accessories to be used. Keep in mind circuit protection and isolation).

List materials/accessories/tools identified in your circuit diagram and explain how/where/why these have been chosen.

## Assessment Criteria: 1.3

**Learning Outcome:** Check components, tools and cables before they are used in an electrical wiring activity.

Explain checks that would be carried out before commencing an electrical installation using the list of identified equipment from your circuit diagram.

(Cable size, damage to accessories, failure of insulation on tools)

## Assessment Criteria: 2.1

**Learning Outcome:** List the safety aspects for an electrical wiring activity.

Using the template below conduct a risk assessment to identify hazards and possible control measures based on your electrical installation.

(**Key Points**: PPE, Preperation of work area, Housekeeping, Removal of waste materials, Eergency exits, COSHH, Warning signs/Physical Barriers, Training/Supervision/Instruction/Information, Hand tools, Electrical Accessories).

## Risk Assessment

| Company : | Date of assessment: | REF | STATUS |
|---|---|---|---|
| | | | |

| Site / Department: | Area / Location: |
|---|---|
| Description of work activity being assessed: | |

| Who exposed: | | Type of assessment: | |
|---|---|---|---|
| Employees | ☐ | Initial | ☐ |
| Contractors | ☐ | Periodic | ☐ |
| Members of the public | ☐ | Operational review | ☐ |

| Assessment of risk with no control measures | High ☐ | Medium ☐ | Low ☐ |
|---|---|---|---|

| Associated hazards: | Control measures: |
|---|---|
| | |

| | |
|---|---|
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| | | | | | |
|---|---|---|---|---|---|
| **Assessment of risk with control measures** | **High** | ☐ | **Medium** | ☐ | **Low** ☐ |

1) Why is it important to remove loose clothing or jewellery before commencing work on electrical installation?

2) Identify essential PPE you would use when working on an electrical installation.

3) Give examples of documentation you may require or that would be of use before beginning an electrical installation.

4) Give examples of resources that could be used to find out key information on electrical principles such as cable current carrying capacity.

## Assessment Criteria: 2.2

**Learning Outcome:** Wire up electrical components correctly and safely.

**Underpinning Knowledge:**

Identify cable types that will be used in your elctrical installation. Explain why these types of cable and cable construction have been chosen. Give details of cross sectional area, current carrying capacity, construction, Insulation, placement (IE – Clipped Direct/Conduit/Trunking).

Explain the purpose of the following in an electrical circuit including the colours you would expect these to be, in line with current regulations.

**Line –**

**Neutral –**

**CPC (Circuit Protective Conductor) -**

| |
|---|
| |
| Outline ohms law and how we can use ohms law in a practical environment. |

Explain Voltage, Current and Resistance.

**Voltage –**

**Current -**

**Resistance -**

Give examples of electrical circuit protection, their purpose and types of installations these may be appropriate. (Minature Circuit Breakers, Residual Current Devices, Residual Current Operated Circuit Breaker with Overcurrent Protection, Fuse).

Identify wiring methods for a domestic socket circuit with multiple outlets. Explain when these circuits may be used.
(https://electricalapprentice.co.uk/different-types-of-circuit/)

Identify wiring methods for a lighting circuit with multiple outlets and explain when these circuits may be used.
(https://electricalapprentice.co.uk/different-types-of-circuit/)

Explain two way switching on a lighting circuit. (Draw a diagram with an explanation).

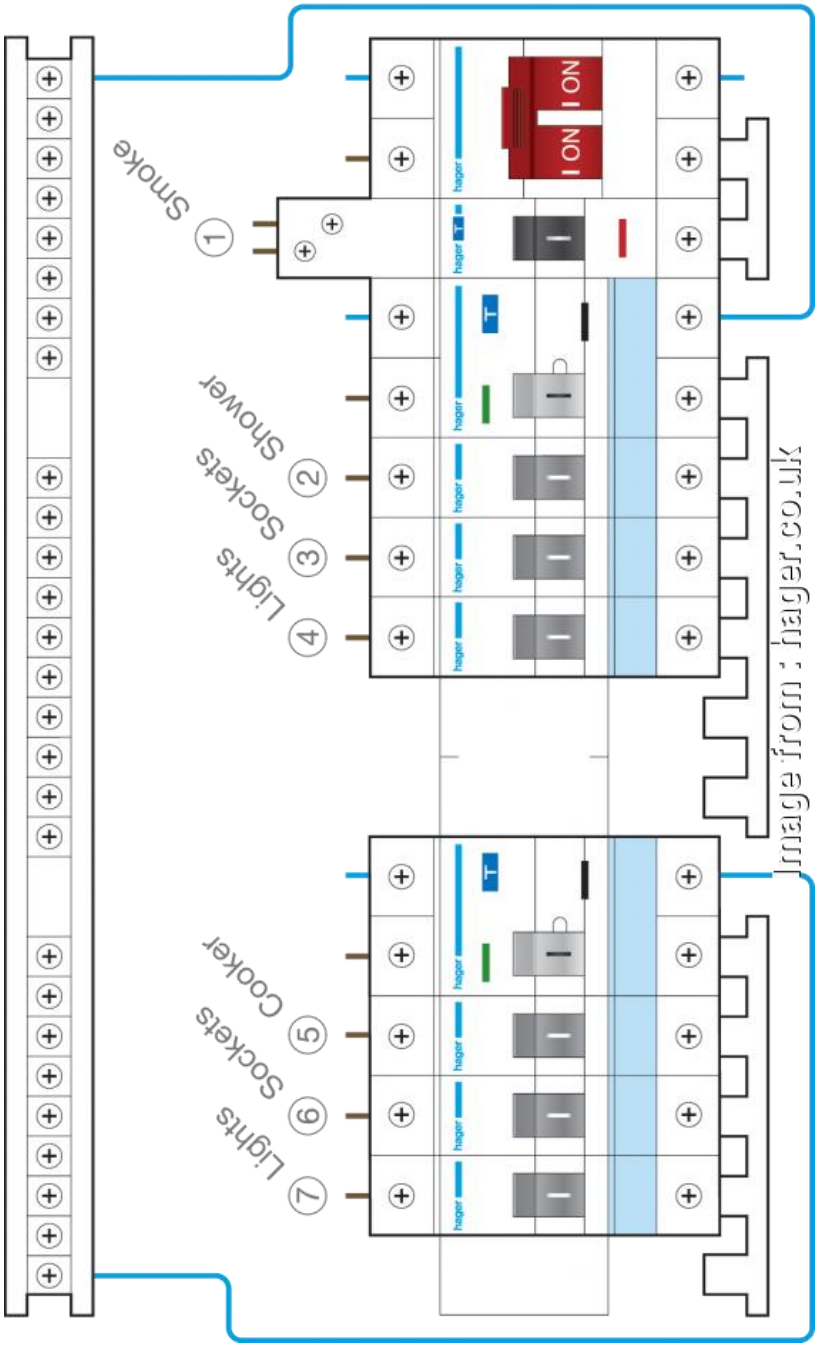
Explain why it is important to take care when stripping cables ready for termination.

Prepare to wire and terminate your electrical installation. Below draw a wiring diagram for your socket circuit. (You may omit the CPC for clarity should you wish)

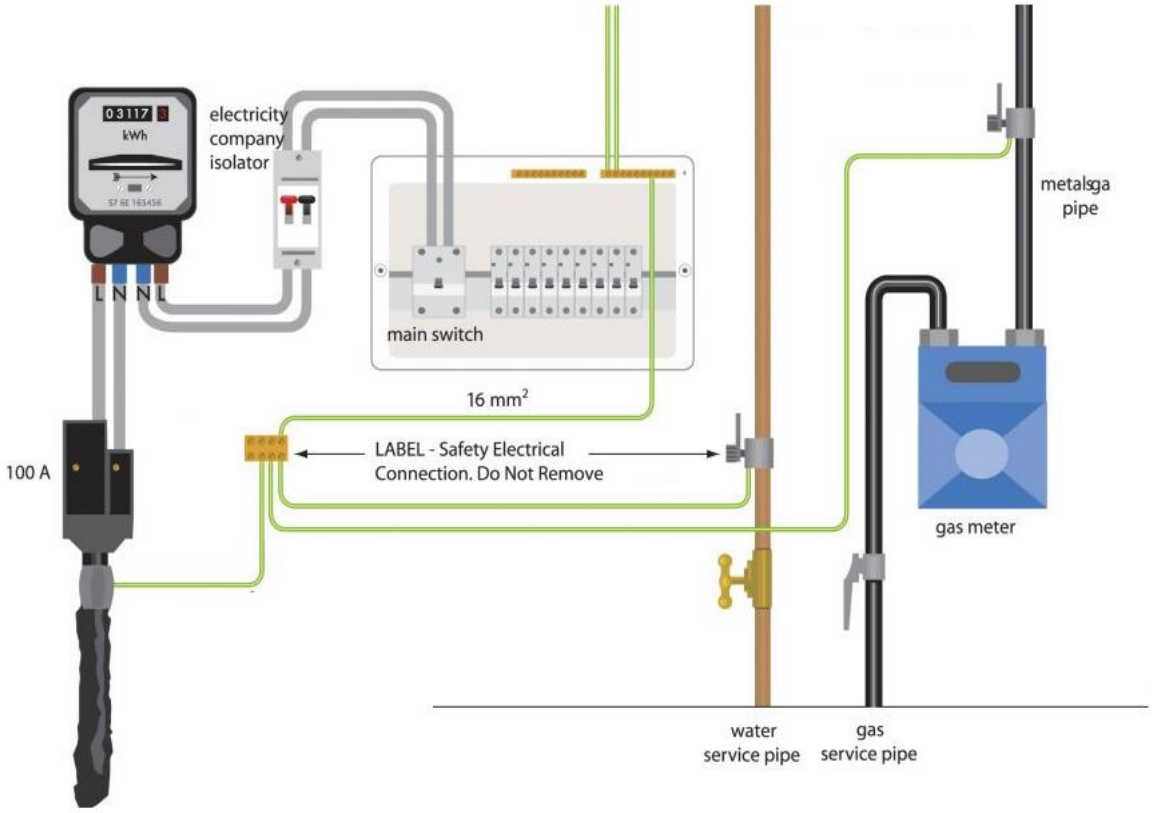
Prepare to wire and terminate your electrical installation. Below draw a wiring diagram for your lighting circuit. (You may omit the CPC for clarity should you wish).

List step by step instructions on stripping and terminating a 3 core 4mm armoured cable using a 25mm gland and shroud from a distrobution board into a rotary isolator.

Label the consumer unit below to identify the protective devices and wiring components.



Label the diagram below.



List all materials, equipment and tools needed for your installation.

**Electrical Accessories -**

**Cable -**

**Tools -**

**Practice Terminations (Photograph 1)**

Highlight where you could of improved on your own terminations.

**Practice Terminations (Photograph 2)**

Highlight where you could of improved on your own terminations

**Installation Evaluation –** Below explain how you found the installation and where you feel you did well and where you feel you could improve. Also explain any defects you may have identified prior to beginning your installation in regards to eectrical accessories, cables or tools.

Below explain methods of testing and inspection that could be now carried out to make sure your installation is ok to energise.

**Continuity Testing -**

**Insulation Resistance Testing -**

**Visual Inspections –**

## Tutor Feedback

| **AC –** Be able to prepare for and carry out an electrical wiring activity | | | |
|---|---|---|---|
| **1.1**<br><br>**Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **1.2**<br><br>**Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **1.3** | | | |

| | | | |
|---|---|---|---|
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

| **AC –** Be able to wire and terminate electrical components correctly and safely | | | |
|---|---|---|---|
| **2.1** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **2.2** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

## Student Declaration

I, _____, confirm that the work for the BTEC Unit with the title: 'Developing Skills in Wiring Electrical Circuits and Components' (L/601/0124) was solely undertaken by myself and that no help was provided from other sources as those allowed.

All materials used are that which are specified within the BTEC Specification. All photographic evidence provided shows a true likeness and shows a task or activity being undertaken.

**Student Name:**

**Student Sign:** **Date:**

**Assessor/Instructor Name:**

**Assessor/Instructor Sign:** **Date:**

## DEVELOPING SKILLS IN ASSEMBLING

## MECHANICAL COMPONENTS

**Unit Summary:** This unit will enable learners to develop manual skills when working with basic assembly tools, so that they can apply them to assembling a product from a small number of mechanical components.

| Learner Name: | |
|---|---|

| **Name of Student:** | |
|---|---|

**Unit 5: Developing Skills in Assembling Mechanical Components**

**Aim:** This unit will enable learners to develop manual skills when working with basic assembly tools, so that they can apply them to assembling a product from a small number of mechanical components.

## Assessment Criteria: 1.1

**Learning Outcome:** Be able to prepare a work area in readiness for assembly operations.

Below are examples of information that may be relevant to an engineering task you have been asked to perform, outline what each piece of information is and what you would expect it to contain.

**Technical Drawing –**

**Specification –**

**Order of Operation -**

## Assessment Criteria: 1.2

Prepare the work area ready for the assembly of components.

Below give a detailed explanation of how you would prepare your work area before commencing a mechanical assembly.

**Housekeeping -**

**Tools -**

**Materials -**

**Documentation -**

**Personal Protective Equipment –**

**Other -**


## Assessment Criteria: 1.3

| Components | Quantity | How Equipment Will be Used | Fit for Use |
|---|---|---|---|
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Use the table below to identify the materials to be used in your mechanical assembley and ensure they are checked and fit for purpose.

| Tool | Quantity | How Tool Will be Used | Fit for Use |
|---|---|---|---|
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Use the table below to identify the tools to be used in your mechanical assembley and ensure they are checked and fit for purpose.

## Assessment Criteria: 2.1

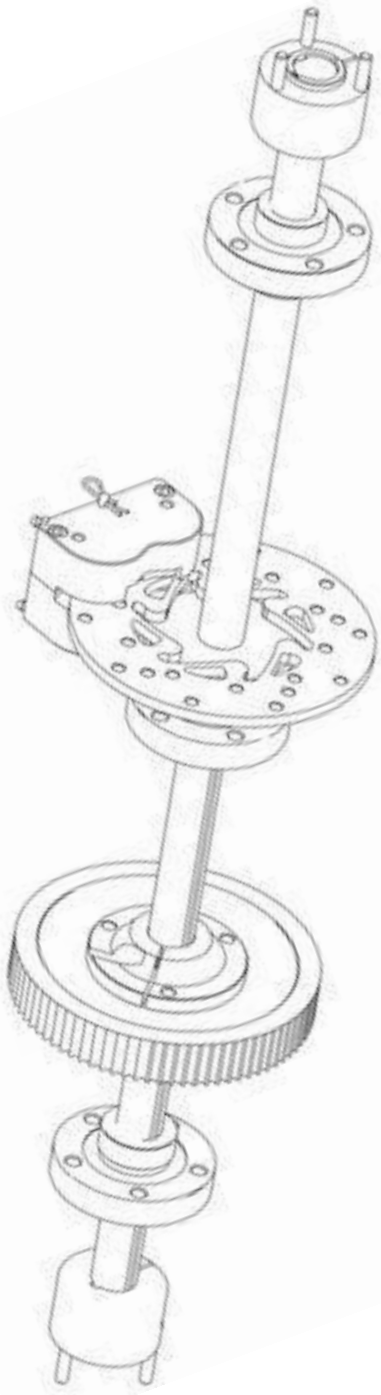
**Learning Outcome:** Be able to carry out assembly operations using mechanical components.

Before commencing the mechanical assembly, produce documentation to support your build. This should include an order of assembly and engineering drawing along with your list of materials and tools.

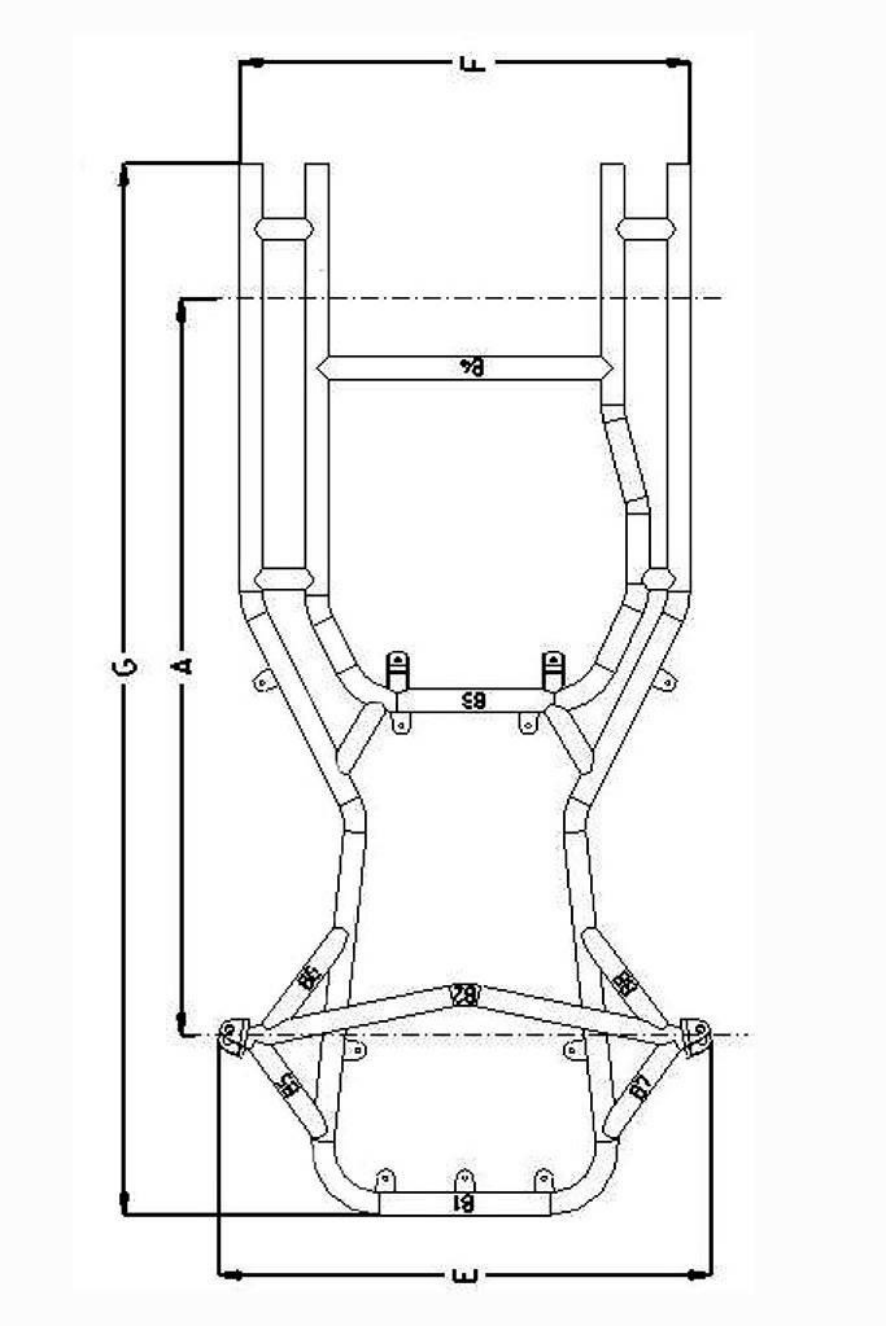
**Order of assembly –** This should include a step by step guide on how you will assemble the mechanical components. EG – using 6 x 10mm hex bolts and 10mm locking nuts attach the sprocket to the sprocket carrier. The bolts require a fixing of 45NM as per manufacturers data.

**Engineering Drawing –** This drawing should show technical information on the assembly. EG – dimensions, Construction and fixings.

## Engineering Drawing



## Engineering Drawing



## Order of Assembly

| Step | Action |
|---|---|
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**Photographic Evidence Of Work Area Prior to Build**

**Photographic Evidence Of Parts for Assembly**

**Photographic Evidence Of Build In Progress**

**Photographic Evidence Of Build Complete**

## Assessment Criteria: 2.2

Check that finished assembly conforms tospecified limits of accuracy.

**Final Commisoning Checks -**

| Check Carried out | Meets Standard |
|---|---|
| Correct assembly of mechanical parts ? | |
| All fixings in place and to correct torque? | |
| Operating clearances ok? | |
| Allignment of sprockets ok? | |
| Orientation of serviceable parts ? | |
| Seating of Bearings ? | |
| Brake Disc running freely? | |
| Correct overhang of axle on hubs? | |
| Does the build meet the specification and engineering drawings? | |

| Work Area | Completed |
|---|---|
| Brush down of power tools | |

## Assessment Criteria: 2.3

Clean down work area and return tools and equipment to storage.

**Work area –** Complete the checklist below.

| | |
|---|---|
| Brush down of work surfaces | |
| Drill bits removed from pillar drill | |
| Stools stored on top of workbenches | |
| Waste deposited in recycling or bin as appropriate | |
| Surplus materials returned to stock | |
| Tools cleaned and returned to correct storage location | |

**Photographic Evidence Work Area**

## Tutor Feedback

| **AC –** Be able to prepare a work area in readiness for assembly operations |
| --- |
| **1.1** |

| | | | |
|---|---|---|---|
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **1.2** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **1.3** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

| |
|---|
| **AC –** Be able to carry out assembly operations using mechanical components |
| **2.1** |

| | | | |
|---|---|---|---|
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **2.2** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **2.1** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

## Student Declaration

I, _____, confirm that the work for the BTEC Unit with the title: 'Developing Skills in Assembling Mechanical Components' (H/600/9142) was solely undertaken by myself and that no help was provided from other sources as those allowed.

All materials used are that which are specified within the BTEC Specification. All photographic evidence provided shows a true likeness and shows a task or activity being undertaken.

**Student Name:**

**Student Sign:** **Date:**

**Assessor/Instructor Name:**

**Assessor/Instructor Sign:** **Date:**

# DEVELOPING SKILLS IN ROUTINE SERVICING OF

# MECHANICAL EQUIPMENT

**Unit Summary:** This unit introduces learners to the skills needed to carry out the routine servicing of mechanical equipment. It will give them the opportunity to think about the necessary precautions and safety requirements when carrying out a routine service on mechanical systems or equipment by learning about equipment, fluid systems, components and operating mechanisms.

| | |
|---|---|
| Learner Name: | |

| **Name of Student:** | |
|---|---|

**Unit 9:** **Developing Skills in Routine Servicing Of Mechanical Equipment**

**Aim:** This unit introduces learners to the skills needed to carry out the routine servicing of mechanical equipment. It will give them the opportunity to think about the necessary precautions and safety requirements when carrying out a routine service on mechanical systems or equipment by learning about equipment, fluid systems, components and operating mechanisms.

## Assessment Criteria: 1.1

**Learning Outcome:** Know about routine mechanical servicing operations.

Explain routine mechanical servicing and its importance, why routine mechnical servicing and maintenance is used throughout industry. Explain the four types of maintenance schedules adopted by many organisations. https://new.abb.com/medium-voltage/service/maintenance/feature-articles/4-types-of-maintenance-strategy-which-one-to-choose

**Planned Preventative Maintenance -**

**Corrective Maintenance -**

**Risk Based Maintenance -**

**Condition Based Maintenance -**

## Service/Maintenance Plan

You will now plan a service. From the list below select a piece of mechanical equipment and idenpendently research and plan a mechanical service to include all relevant parts. The plan must include a risk assessment to minimise any risks.

**Mechanical Equipment**

- Conveyor Belt System (https://www.myodesie.com/wiki/index/returnEntry/id/3050)
- CNC Milling Machine (https://www.okuma.com/handy-checklist-for-preventive-maintenance)
- Guillotine (https://www.jps-machinery.co.uk/metal-cutting-guillotine-repair-service-breakdown/)
- Strapping/Packing Machine (Ask tutor for service manual)

| | |
|---|---|
| **Chosen Equipment:** | |
| **Make/Model:** | |
| **Type Of Service:** | |

| Servicable Part | Action |
|---|---|
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**Continued**

| Servicable Part | Action |
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**Risk Assessment** – Identify the risks involved with this service and identify control measures to help minimise those risks.

| Hazard | Control Measure |
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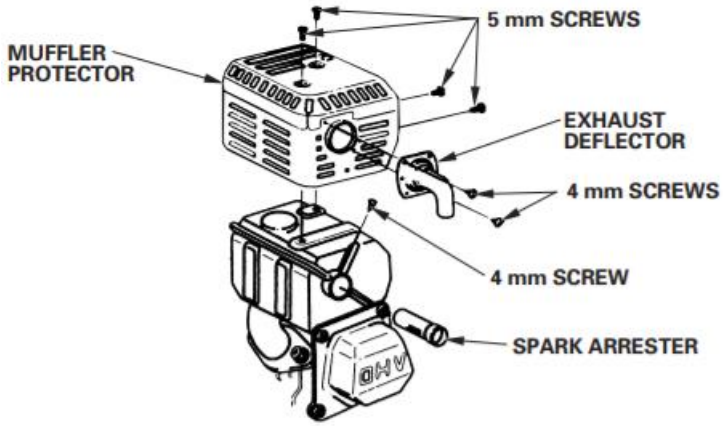
## Assessment Criteria: 1.2

**Learning Outcome:** Know about routine mechanical servicing operations.

You will now research and plan the service of a Honda GX 200cc Petrol Generator Engine. Your service plan must contain accurate information given by the manufacturer.

Using the table provided identify serviceable parts and outline any manufacturer information on why these parts may be serviced along with your actions for the service. Example below.

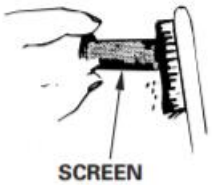
**Spark Arrester**




**Spark Arrester Cleaning & Inspection**

**(Ask tutor for service manual)**

1. Use a brush to remove carbon deposits from the spark arrester screen. Be careful not to damage the screen. Replace the spark arrester if it has breaks or holes.




2. Install the spark arrester, muffler protector, and exhaust deflector in the reverse order of removal.

**Service Plan –** Identify serviceable parts and explain your action.

| Servicable Part | Action |
|---|---|
| | |

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## Assessment Criteria: 2.1

**Learning Outcome:** Be able to service mechanical equipment and systems safely.

You will now carry out a mechanical service. Using the planning in assessment criteria 1.2, create a safe system of work/safe working procedure and risk assessment for your mechanical service to include; permits to work, housekeeping of work area, surplus materials and waste materials, tools/equipment, checking all servicing operations have been completed, all guards and covers replaced, no fluid or oil leaks.

Evidence of this may be attached seperatley to this working folder however must be documented on this page and signed by assessor.

| Documentation Attached | Tutor Feedback |
|---|---|
| Risk Assessment | |
| | **Tutor Sign:** |
| SSOW/SWP | |
| | **Tutor Sign:** |

## Assessment Criteria: 2.2

**Learning Outcome:** Be able to service mechanical equipment and systems safely.

**Photographic Evidence of Mechanical Service**

**Photographic Evidence of Mechanical Service**

**Service Summary –** Below outline the mechanical service that has been refrenced in the photographic evidence above and identify problem areas and solutions that where found during the service.

## Tutor Feedback

| **AC –** Know about routine mechanical servicing operations. | | | |
|---|---|---|---|
| **1.1** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **1.2** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

| **AC –** Be able to service mechanical equipment and systems safely. | | | |
|---|---|---|---|
| **2.1** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **2.2** | | | |

| | | | |
|---|---|---|---|
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

# PREPARING FOR AN INTERVIEW

**Unit Summary:** Preparation and planning are vital aspects of the interview process and go a long way towards improving the chances of a successful outcome. In this unit, learners will develop the skills of planning appropriate questions to ask an interviewer as well as preparing responses to likely questions ahead of an interview to help them arrive at the correct time and place.

| | |
|---|---|
| Learner Name: | |

| **Name of Student:** | |
|---|---|

**Unit 9: Preparing For An Interview**

**Aim:** Preparation and planning are vital aspects of the interview process and go a long way towards improving the chances of a successful outcome. In this unit, learners will develop the skills of planning appropriate questions to ask an interviewer as well as preparing responses to likely questions ahead of an interview to help them arrive at the correct time and place.

## Assessment Criteria: 1.1

**Learning Outcome:** Know how ro respond to questions that may be asked at interview.

**Explain the following interview preparations -**

Company Research -

Role Research -

Industry Resarch -

Using the job description/brief below identify possible questions that may be asked at the interview for the position.

**Junior/ Trainee Maintenance Engineer (Mechanical/ Electrical)**

£24,000 - £30,000 - Full training + Pension scheme + Healthcare scheme

Doncaster, Yorkshire (Commutable from: Rotherham, Worksop, Blyth, Scunthorpe, Goole, Pontefract)

Are you a Junior/ Trainee Engineer from a Mechanical or Electrical background looking for full training within a manufacturing site and progression as a Multi-skilled Maintenance Engineer?

This market leading food manufacturer has been established for over 100 years and turnover £23 million per annum. The management team want to actively train and develop a Junior/ Trainee Engineer into a highly skill Maintenance Engineer where you will develop both Mechanical and Electrical skills.

In the first 12 months you will shadow the existing 6-person maintenance team where you will learn how to carry out reactive and proactive maintenance on automated FMCG machinery such as a conveyor, chillers, ovens. You will need to demonstrate practical skills and experience in Electrical and/ or Mechanical engineering where you will carry out routine and reactive service on state-of-the-art machines.

This role will suit a Junior/ Trainee Mechanical or Electrical Engineer who wants to progress as a Multi-skilled Maintenance Engineer with full training and support from a highly skilled team in a busy and varied manufacturing facility.

The role:
- Trainee Maintenance Engineer
- Carry out routine and reactive service of machines such as conveyors, chillers, ovens - training provided
- 3 shift pattern following successful training period

The person:
- Mechanical or Electrical Engineering qualification (Apprenticeship or HNC or equivalent)
- Understanding of electrical or hydraulic or mechanical drawings and systems.

Using the template below create a 'Factsheet' as a guide line to answer possible questions.

| Question | Answer |
|---|---|
| | |
| | |
| | |
| | |
| | |
| | |

| | |
|---|---|
| | |

1) Below give a brief explanation of how you would answer a question you do not know the answer to.

2) Explain how body language and attitudeis important in an interview.

Using the job description above give answers to the following four questions:

Question 1 – Could you please give me an example of when you have worked well within a team to solve a problem?

Question 2 – You already hold engineering qualification, would you be happy to continue training whilst in employment, this may take up some of your own free time which would be unpaid?

Question 3 – Could you please explain to me why you feel you are a good candidate for this role?

Question 4 – Could you please give me an example of a time when you have had to work independently and how you managed this ?

## Assessment Criteria: 2.1

**Learning Outcome:** Be able to prepare appropriate questions to ask the interviewer.

Using the job description/brief above give examples of questions you could ask the perspective employer in order to show your interest in the job. Explain how the question demonstrates this for each example.

**Question 1 -**

**Question 2 -**

**Question 3 -**

**Question 4 -**

**Mock Interview Questions**

You will now be given a Job/Course/Volunteering Brief you will be given time to read through the brief and conduct some research before being interviewed for the role by your assessor, using the techncues above answer the interview questions and when prompted ask questions to show your interest in the position. Your asessor will then provide feedback on your performance.

| | |
|---|---|
| **Answers to questions:**<br><br>/10 | |
| **Company/Course Knowledge:**<br><br>/10 | |
| **Industry Knowledge:**<br><br>/10 | |
| **Attitude:** | |

| | |
|---|---|
| /10 | |
| **Questions Asked:**<br>/10 | |
| **Difficult Question response:**<br>/10 | |
| **Overall :**<br>/60 | |
| **Assessor Signature** | |

## Assessment Criteria: 3.1/3.2

**Learning Outcome:** Plan to arrive at the interview on time.

1. Why is it important to arruve at an interview on time ?

2. How can you prepare in order to avoid being late ?

You will now be given a Invitation to attend an interview letter, from this letter you must be able to pick out the interview time, date, venue and interviewer name and any other special requirements enter them in the tabel below.

| | |
|---|---|
| **Interview Time:** | |
| **Interview Date:** | |
| **Interview Venue:** | |
| **Interviewer Name:** | |
| **Special Requirements:** | |
| **Assessor Confirmation of accurate information provided by student:** | |
| **Assessor Signature:** | |

**Planning the Journey**

You will now, using the information extracted from the interview letter, plan your journey from your home to the interview venue arriving at the venue on time for the interview. You may use public transport to reach your destination.

## Tutor Feedback

| **AC –** Know how to respond to questions they might be asked at the interview. |
| --- |
| **1.1** |

| | | | |
|---|---|---|---|
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **AC –** Be able to prepare appropraite questions to ask the interviewer | | | |
| **2.1** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |
| **AC –** Plan to arrive at the interview on time | | | |
| **3.1/3.2** | | | |
| **Assessment Criteria Met:** | **Yes** | **No** | **Tutor Sign:** |

**Feedback Form – Overall comments from tutor**

**Contribution to class discussions:**

Did the student speak clearly: Yes [ ] No [ ]

Was the student confident: Yes [ ] No [ ]

Did role-play/practical session take place: Yes [ ] No [ ]

**Contribution to group/team work**:

Did the student work as a team: Yes [ ] No [ ]

Was the student helpful/kind towards others: Yes [ ] No [ ]

Did role-play/practical session take place: Yes [ ] No [ ]

**Comments on classroom based work which is not included in this portfolio:**

Was research skills involved: Yes [ ] No [ ]

Was attendance: Excellent [ ] Good [ ] Poor [ ]

**Areas of improvement:**

| | |
|---|---|
| Capital letters: | Yes [ ] No [ ] |
| Spelling/punctuation: | Yes [ ] No [ ] |
| Not to rush work: | Yes [ ] No [ ] |
| Use a computer: | Yes [ ] No [ ] |
| Speak more in class: | Yes [ ] No [ ] |
| Concentrate more: | Yes [ ] No [ ] |
| Improve attendance: | Yes [ ] No [ ] |

Areas for development/Further recommendations.

Tutors signature:_____

Date portfolio marked:_____


**Feedback Form – Overall I.V. comments (staff performance).**

**Tutor/Assessor comments from IV: Tick if evidence is shown.**

Use of marking codes: [ ] All assessment criteria marked. [ ] Photographic evidence [ ]

Evidence of Practical/role play session [ ] Have witness statements been used [ ]

Has tutor/assessor given feedback to student's [ ]

**Areas which need improvement/Overall comment**: