
Overview

This standard identifies the competences you need to carry out servicing and maintenance activities on brake parachute assemblies, in accordance with approved procedures. You will be required to select the appropriate tools and equipment to use, based on the maintenance activities to be carried out, and to check that they are in a safe and serviceable condition. The maintenance activities will involve dismantling the equipment, cleaning the various parts using suitable solutions, carrying out a thorough examination of the parachute and associated parts, in line with the relevant schedule, replacing any damaged or defective parts, carrying out any required modifications, making any required adjustments, checking and testing equipment operation and performance.

Your responsibilities will require you to comply with organisational policy and procedures for the maintenance activities undertaken, and to report any problems with these activities that you cannot personally resolve, or that are outside your permitted authority, to the relevant people. You will be expected to work with a minimum of supervision, taking personal responsibility for your own actions and for the quality and accuracy of the work that you carry out.

Your underpinning knowledge will provide a good understanding of your work, and will provide an informed approach to applying maintenance techniques and procedures to brake parachutes. You will understand the type of parachute being maintained, and its application, and will know about the various components, in adequate depth to provide a sound basis for carrying out the activities, identifying and correcting faults, and ensuring that the equipment is maintained to the required specification.

You will understand the safety precautions required when carrying out maintenance operations on brake parachute assemblies. You will be required to demonstrate safe working practices throughout, and will understand the responsibility you owe to yourself and others in the workplace.

**Performance
criteria**

You must be able to:

- P1 work safely at all times, complying with health and safety and other relevant regulations, directives and guidelines
- P2 follow the relevant maintenance schedules to carry out the required work
- P3 carry out the maintenance activities within the limits of your personal authority
- P4 carry out the maintenance activities in the specified sequence and in an agreed timescale
- P5 report any instances where the servicing or maintenance activities cannot be fully met or where there are identified defects outside the planned schedule
- P6 complete the relevant maintenance records accurately and pass them on to the appropriate person
- P7 dispose of waste materials in accordance with safe working practices and approved procedures

Knowledge and understanding

You need to know and understand:

- K1 the specific safety precautions and procedures to be observed whilst carrying out the maintenance of the brake parachute assemblies (including any specific legislation, regulations or codes of practice relating to the activities, equipment or materials)
- K2 the health and safety requirements of the work area in which you are carrying out the maintenance activities and the responsibility these requirements place on you
- K3 the hazards associated with maintaining the parachute assemblies and how to minimise them and reduce any risks
- K4 the requirements and importance of understanding and applying human factors as defined by the regulatory requirements and the potential impact if these are not adhered to
- K5 the personal protective equipment (PPE) that you need to use during the maintenance activities and where it can be obtained
- K6 the documentation, specifications and schedules that are used during the servicing/maintenance activities, and the importance of following the procedures listed in these documents (to include Urgent Technical Instructions (UTI), Routine Technical Instructions (RTI), Maintenance Instructions (MI), Preliminary Warning Instructions (PWI) and Serious Defect Signals, Service Modifications)
- K7 the types of fault, defect or wear characteristic that are likely to occur with the brake parachute assemblies
- K8 how to determine when components require adjustment, repair or replacement
- K9 the components to be replaced in the brake parachute assemblies and the method of replacement
- K10 how to identify the components to be used for the various types of parachute assembly being maintained
- K11 the quality control procedures to be followed during the maintenance procedures
- K12 how to conduct any necessary checks to ensure that the parachute assemblies function to specification
- K13 the problems that can occur with the maintenance of the parachute assemblies and how these can be overcome
- K14 the importance of correct securing and locking of connections
- K15 the importance of tool control and the organisational tool control procedures used
- K16 the tools and equipment used in the maintenance activities and their calibration/care and control procedures
- K17 the importance of ensuring that, when the maintenance is completed, the parachute assembly is free from dirt and foreign objects

- K18 the disposal methods for waste and petrol, oil and lubricants (POL)
- K19 problems with the maintenance procedures and the importance of informing appropriate people of defects
- K20 the recording documentation to be completed for the activities undertaken and, where appropriate, the importance of marking and identifying specific pieces of work in relation to the documentation
- K21 the extent of your own responsibility and to whom you should report if you have problems that you cannot resolve

Additional Information

Scope/range related to performance criteria

- You must be able to:*
1. Carry out **all** of the following during the servicing and maintenance of the brake parachute assemblies:
 - 1.1 obtain and use the appropriate documentation (such as job instructions, servicing or maintenance schedule, technical instructions and specifications)
 - 1.2 adhere to procedures or systems in place for risk assessment, COSHH, personal protective equipment and other relevant safety regulations and procedures to realise a safe system of work
 - 1.3 provide and maintain a safe working environment for the maintenance activities
 - 1.4 obtain the correct tools and equipment for the activity, and check that they are in a safe, tested and usable condition and within current calibration date
 - 1.5 use appropriate and approved servicing and maintenance techniques and procedures at all times
 - 1.6 return all tools and equipment to the correct location on completion of the activities
 - 1.7 dispose of waste materials in accordance with approved procedures
 - 1.8 leave the work area and parachute assembly in a safe and appropriate condition, free from damage or foreign object debris on completion of the activities

 2. Carry out **all** of the following repair/maintenance methods and techniques:
 - 2.1 dismantling the equipment to component or sub-assembly level
 - 2.2 cleaning the equipment (such as container, metallic components) using appropriate methods
 - 2.3 monitoring the condition/deterioration of components
 - 2.4 replacing all damaged or defective components
 - 2.5 reassembling the equipment
 - 2.6 carrying out any required modifications to the equipment, where applicable
 - 2.7 carrying out adjustments to components and connections
 - 2.8 checking equipment operation and performance
 - 2.9 testing the equipment, in accordance with the relevant air publication (AP)/maintenance procedure

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3. Carry out a thorough examination of the parachute, to include **all** of the following:
 - 3.1 the parachute canopy, drogues, pilot chutes, for correct sequence of attachment, freedom from defects, deterioration, contamination and security of attachment
 - 3.2 all rigging lines for freedom from defects and correct sequence of connection
 - 3.3 pack/container assembly, for freedom from damage, deterioration, contamination and correct assembly
 - 3.4 links, attachment points, for freedom from damage, deterioration and security of attachment
 - 3.5 canopy for condition and record of usage
 - 3.6 all grommets, screws and fasteners for security of attachment

4. Replace a range of components as detailed below:
replace **one** of the following:
 - 4.1 main parachute canopy
 - 4.2 connectors
 - 4.3 reserve parachute canopy
 - 4.4 pack/container assemblyplus **two** of the following:
 - 4.5 auxiliary parachute
 - 4.6 gaiters
 - 4.7 rigging line stowage
 - 4.8 canopy withdrawal line
 - 4.9 retaining strop/flapplus **four** of the following:
 - 4.10 elastic bands
 - 4.11 main connector link
 - 4.12 split pins
 - 4.13 links
 - 4.14 fasteners
 - 4.15 grommets

5. Carry out maintenance requirements, in accordance with **two** of the following types of instructions:
 - 5.1 Urgent Technical Instructions (UTI)
 - 5.2 Routine Technical Instructions (RTI)
 - 5.3 Maintenance Instructions (MI)
 - 5.4 Preliminary Warning Instructions (PWI)
 - 5.5 Serious Defect Signals
 - 5.6 Service Modifications

6. Carry out maintenance work in compliance with **one** of the following:
 - 6.1 Civil Aviation Authority (CAA)/European Aviation Safety Agency (EASA)
 - 6.2 Ministry of Defence (MoD)
 - 6.3 Military Aviation Authority (MAA)
 - 6.4 Aerospace Quality Management Standards (AS)
 - 6.5 Federal Aviation Authority (FAA)
 - 6.6 BS, ISO or BSEN standards and procedures
 - 6.7 customer standards and requirements
 - 6.8 company standards and procedures
 - 6.9 manufacturers standards and procedures

7. Complete the relevant maintenance records, to include **one** from the following and pass it to the appropriate people:
 - 7.1 maintenance schedule/log
 - 7.2 job cards
 - 7.3 aircraft service/flight log
 - 7.4 other specific recording method

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