

## Overview

This standard identifies the competences you need to produce splices in wire and fibre ropes manually, in accordance with approved procedures. You will be required to produce a range of different splices in wire and fibre ropes, in accordance with specifications or instructions.

You will be expected to obtain any necessary equipment and to check that it is in a safe and usable condition. You will need to set the rope up in a suitable workholding device (where appropriate) and prepare the rope by cutting it correctly, un-laying the strands and applying whippings. You will also be expected to produce a tight splice, with the relevant number of tucks and locking tucks, consistent with the type of splice or the intended use.

Your responsibilities will require you to comply with organisational policy and procedures for the splicing activities undertaken, and to report any problems with these activities, or with the ropes or equipment used that you cannot personally resolve, to the relevant authority. You will be expected to work with a minimum of supervision, taking full responsibility for your own actions and for the quality 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 manual splicing procedures. You will understand the techniques and methods of splicing and their application and you will have an adequate understanding of the properties of wire and fibre ropes, to provide a sound basis for carrying out the splicing activity, correcting faults and ensuring that the completed splice is to the required specification.

You will understand the safety precautions to be taken when carrying out the splicing activities. You will be required to demonstrate safe working practices throughout and will understand the responsibility you owe to yourself and others in the work place.

**Note:** All spliced ropes will have to be tested by the appropriate authorities, in accordance with their operating environment and intended use.

## Performance criteria

### *You must be able to:*

1. work safely at all times, complying with health and safety and other relevant regulations, directives and guidelines
2. obtain the required equipment and materials and check that they are in a safe and usable condition
3. follow instructions and any relevant specifications to produce the splice
4. produce the required splice using appropriate methods and techniques
5. check that the finished splice meets the requirements and make any necessary adjustments
6. deal promptly and effectively with problems within your control and report those that cannot be solved
7. ensure that all the ropes that have been spiced are tested by the appropriate authorities before use
8. complete the required recording and register documentation in line with organisational procedures, after the splicing operation

## Knowledge and understanding

### *You need to know and understand:*

1. the specific safety precautions to be taken when carrying out splicing operations with regard to health and safety legislation, personal protective equipment (PPE), safe working practices and procedures and the safety of yourself and others working in the vicinity
2. the risks and hazards associated with carrying out splicing operations, and how they can be minimised
3. the correct handling and storage of wire and fibre ropes
4. drawings, specifications and work instructions relating to splicing
5. types of splice, their purpose and intended use (to include short splice, long splice, back splice and eye splices)
6. tests to be applied to particular splices
7. the limitations and constraints associated with the respective types of splice
8. breaking strain and safe working load (SWL) or working load limit (WLL) of wire and fibre ropes and how this is affected by splicing
9. the tools, equipment and consumables used in the splicing operations
10. cutting and unlaying wire and fibre rope
11. the type and purpose of whippings in the splicing operation
12. workholding devices used when splicing
13. the sequence, number and type of tucks to be made
14. completing a splice by whipping or worming, parcelling and serving; its purpose and under what circumstances they would be used
15. checking all aspects of a completed splice
16. the requirements regarding testing the completed spliced ropes and the appropriate authority to carry out these tests (taking into account to the environment in which they are to be used and the use/load they are intended to lift/move)
17. completing records and registers of rigging equipment
18. the problems that can occur with splicing operations and how they can be avoided
19. the extent of your own responsibility and whom you should report to if you have problems that you cannot resolve

SEMME3200

Carrying out manual splicing operations



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## Scope/range related to performance criteria