**MSQ Unit 94 - DRAFT**

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| Title: | **Marine Electrical Practice** |
| QCF Level: | **3** |
| Credit value: | **4** |
| Learning outcomes*The learner will:* | Assessment criteria *The learner can:* |
| 1. Understand the key constructional components of electrical machines and equipment that make up a ships electrical system
 | * 1. Identify all the main parts that are required for the smooth operation of electrical:
		1. Alternators
		2. Motors
		3. switchboards
	2. Explain the correct operation of electrical safety devices
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| 1. Know the important features and operational characteristics of a marine electrical system
 | * 1. Explain how the shore power is connected safely
	2. Describe the arrangement of the marine electrical “Insulated” neutral distribution system
	3. Identify the components that make up electrical motor starters and control systems.
	4. Explain the action of electrical starters and control systems
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| 1. Know how to operate electrical equipment safely
 | * 1. Explain how to manually synchronise alternators
	2. Describe how to evaluate the power requirements and reserve capacity before starting an electrically powered service.
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| 1. Understand the maintenance requirements for electrical equipment
 | * 1. Describe, with examples, the term “Intrinsically safe”
	2. Explain the maintenance for each of the following:
		1. Alternators
		2. Motors
		3. Electrical safety equipment
		4. Swichboards, relays and switches
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| **Additional information about the unit** |  |
| Unit aim(s) |  |
| Unit expiry date |  |
| Details of the relationship between the unit and relevant national occupational standards (if appropriate) | Maritime NOS (Fe. 2012)–  |
| Details of the relationship between the unit and other standards or curricula (if appropriate) | Maritime and Coastguard Agency Marine Guidance Notice regarding Certificates of Competency – Engine Department,  |
| Assessment requirements specified by a sector or regulatory body (if appropriate) | MSA assessment strategy and MCA requirements |
| Endorsement of the unit by a sector or other appropriate body (if required) | MCA…. |
| Location of the unit within the subject/sector classification system | MSQ Pathway XXX |
| Name of the organisation submitting the unit | Scottish Qualifications Authority |
| Availability for use |  |
| Availability for delivery |  |
| Guided Learning Hours | 40 |