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| Overview | This standard covers the competence to contribute to establishing requirements, planning and resourcing vessel engineering maintenance. Work methods, organisation and budget limitations require close consultation and co-operation to optimise the use of resources and finances. Records are made and updated.  **Target Group**  This standard applies to individuals at the management level with responsibility for planning maintenance of engineering systems on vessels of any type and of any registered power. |

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| **Performance criteria**  You must be able to: | 1. obtain current data on the factors affecting current or potential engineering maintenance, accurately forecast the condition of machinery and systems in respect of known rates of deterioration and wear and determine the maintenance requirements by using the data 2. identify the priority levels and timing of maintenance requirements with respect to overall ship safety, commercial operations and organisational considerations 3. identify work methods and activities which are required within the current maintenance plan operational priorities, technical specification, organisational objectives and legal requirements 4. identify and take action on potential problems of implementing the plan 5. estimate the resources required to implement the plan, determine and produce procedures and work methods that optimise the use of available material, equipment and people and meet organisational and vessel objectives 6. organise the resources to meet the maintenance plan and meet the needs of safe and efficient plant operation and ensure the availability of plans, specifications, materials and equipment for carrying out maintenance and repair 7. ensure specified procedures and work methods are in accordance with technical, legislative and safety specifications and requirements and review and update as necessary to ensure continued effectiveness 8. ensure that maintenance objectives are achieved by specifying the most appropriate work methods and activities 9. record plans for reference in a suitable format which complies with statutory and organisational requirements |

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| Knowledge and understanding  You need to know and understand: | 1. the working principles, constructional details and maintenance requirements of vessel systems and equipment 2. how to determine maintenance requirements from operating conditions 3. how to determine and schedule maintenance priorities and timing 4. the effects that the function of the equipment or system has on interfaced equipment and systems 5. the characteristics and limitations of materials and processes used in the construction and repair of ships and equipment 6. how to select the most appropriate repair method 7. how to determine and specify safe and effective procedures and work methods 8. the delegation of responsibilities for maintenance of the vessel's machinery and the level of supervision required by individuals 9. the statutory restrictions on the working hours of individuals 10. how to identify and assess the competence of individuals 11. the statutory and organisational reporting requirements 12. the importance and use of records for commercial and legislative purposes. 13. how to evaluate and apply Statutory Regulations and guidelines, organisational instructions and guidance and vessel contingency plans |

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