1. Title	Heat treatment operations of steel
2. Code	EMSRRM313A
3. Range	Implement procedures of heat treatment of steel in daily tasks of ship repair.
4. Level	3
5. Credit	3
6. Competency	<u>Performance Requirements</u> 6.1 Basic theory of heating and its application to steel ♦ Understand the physical effect of heating on steel and its range of application based on the knowledge of the relation diagram of iron and carbon • Toughening effect • Normalization effect • Hardening effect • Heat treatment (such as soldering) 6.2 Heat treatment method and procedures for steel ♦ Heat treatment of steel (such as quenching, normalizing, tempering, annealing) ♦ Implement bathing or blowing working procedures systematically in the hardening process of heat treatment 6.3 Professional knowledge of heat treatment ♦ Know about the basics and range of application of steel materials ♦ Assist in and make preparations for the welding procedure ♦ Be familiar with the heating process and necessary procedures
7. Assessment Criteria	The integrated outcome requirements of this unit of competency are: (i) Capable to implement heat treatment procedures for steel; and (ii) Capable to apply the professional knowledge of heat treatment.
8. Remarks	The credit value of this unit of competency is set on the presumption that the person already possesses basic knowledge of physics.