Learning Outcomes in Module Report

Module Code	SPC06
Module Name	Steam Turbine Construction

Learning Outcomes

Code	Name	Hours	Description
6.0	Steam Turbine Construction	6	On completion of this module the participant should be able to understand the following concepts and apply them in day to day work activities. Major components of the steam turbine. Conversion of heat energy (in steam) to rotating mechanical energy. Stationary and moving blades. Impulse and reaction blading. Steam conditions at turbine exhaust. Increase in specific volume of steam at low pressure. Typical multi-cylinder arrangements. Location of support bearings. Function of the thrust bearing. Allowance for expansion of rotor and casing. Rotor construction, disks and blades. Diaphragms and fixed blades. Turbine assembly. Function of shaft gland seals. Gland steam leak-off and supply system. Interstage seals. Typical lube oil circulation system. Need for continuous lube oil cooling and cleaning. Standby oil pumps AC and DC. Hydraulic oil application. Combined lube and hydraulic oil system. Function of the condenser and location. Condenser mechanical arrangements. Fouling of condenser tubes and tube plate. Water box syphon system. Effect of air leakage into the condenser. Removal of air and incondensable gases from the condenser by vacuum equipment. Function of the steam ejector for start-up and on-line operation.

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