

LESSON PLAN NUMBER:**Department: NHH Core Mechanical****Aim:** Develop trainee awareness, knowledge, understanding and experience of condition monitoring of plant equipment in accordance with the current training objectives.**Topic:** Condition Monitoring**Previous Knowledge:**

Target Time	Learning Reference	Objectives/Content	Tutor Activity	Learner Activity	Resources		Assessment
					Handouts	Equipment	
Session 1 1.40 hrs to 1.50 hrs	ROA CME 17	Introduction to condition monitoring and what it is, predictive maintenance, monitoring values, vibration analysis, infrared thermography, oil analysis and tribology, ultrasonic	State aims and objectives Lecture, explain,	Listen, take notes and ask questions Complete hand out	CM – hard drive	Power point	Complete hand out Answer questions
Session 2 1.40 hrs to 1.50 hrs	ROA CME 17	Dye pentrant detection, magnetic particle detection, ultra sonic a How to monitor, corrective measures, myths, infrared thermography, pump thermography, advantages and disadvantages and xray detection	Lecture, explain and demonstrate using PP	Listen, take notes and ask questions Complete hand out	CM – hard drive	Power point	Complete hand out Answer questions
Session 3 1.40 hrs to 1.50 hrs	ROA CME 17	SKF heat and Vibration analysis	Explain, demonstrate and participate	Practical Activity – using the SKF condition monitoring kit the learners are to carry out vibration and heat analysis of rotating equipment on the outside rig or Ian Taylors workshop.	CM – hard drive	SKF Analysis kit, BE's workshop	Successful completion of CM
Session 4 1.40 hrs to 1.50 hrs	ROA CME 17						

Equality & Diversity	Differentiated Learning Activities (Highlight or tick where applicable)
<p><u>Challenge stereotypes by:</u></p> <ul style="list-style-type: none"> • Using non discriminatory language. • Using diverse images, names & scenarios. <p><u>Promote a positive learning environment by:</u></p> <ul style="list-style-type: none"> • Being a positive role model. • Encouraging collaborative work. • Valuing individual characteristics and experiences. • Encouraging learners to participate. • Nurturing mutual respect. • Promoting positive behaviour. <p><u>Promote inclusion by:</u></p> <ul style="list-style-type: none"> • Anticipating and addressing potential barriers to learning. • Using accessible resources. 	<ul style="list-style-type: none"> • Was a mix of individual, paired and group work required. <input type="checkbox"/> • Variety of activities for different learning styles. <input type="checkbox"/> • Is learning support required <input type="checkbox"/> (If ticked record in action plan) • Targeted differentiated questioning to check learning with prompts/leads to support less able learners. <input type="checkbox"/> <p><u>Specific Differentiation activities:</u></p> <ul style="list-style-type: none"> • By Extension <input type="checkbox"/> (For example additional practical tasks after completion of ROA/QCF/TECH CERT content) • By Group Work <input type="checkbox"/> (For example grouping learners of mixed ability y to support each other within the peer group) • By Content. <input type="checkbox"/> (For example study different resource materials within the same topic area) • By Activities. <input type="checkbox"/> (For example study the same content but do different activities) • By Gradation <input type="checkbox"/> (For example the same information and activities are given as the activity becomes progressively more difficult)
LESSON NOTES	