

**CORE COMPETENCIES
(120 HOURS)**

Unit of Competency	Learning Outcomes	Learning Activities	Methodologies	Assessment Methods	Nominal Duration
1. Perform pre- and post-operation procedures for Hydraulic excavator	1.1 Perform visual check	<ul style="list-style-type: none"> • Select personal protective equipment • Select hydraulic excavator capacity • Identify and explain operator serviceable parts • Perform inspection of equipment 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	16 hours
	1.2 Perform "B L O W A F" check	<ul style="list-style-type: none"> • Explain and perform procedures in BLOWAF check for engine type • Explain and perform procedures in checking battery-operated type hydraulic excavator 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	1.3 Perform visual check for upper, lower structure and attachments	<ul style="list-style-type: none"> • Explain procedures in visual check for upper, lower structure and attachments • Identify abnormal conditions • Perform visual check upper, lower structure and attachments 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	1.4 Perform operation check	<ul style="list-style-type: none"> • Explain and perform start-up and warming procedures • Explain procedures in conducting walk-around check while the hydraulic excavator is power on • Perform operation of hydraulic excavator components and safety devices 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	

Unit of Competency	Learning Outcomes	Learning Activities	Methodologies	• Assessment Methods	Nominal Duration
	1.5 Perform post-Operation procedures	<ul style="list-style-type: none"> • Explain walk around procedures while engine is cooling down • Explain and perform parking and shut-down procedures • Explain how to accomplish DETR 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
2. Perform basic preventive maintenance servicing for hydraulic excavator	2.1 Perform adjustment or replacement for noted defects	<ul style="list-style-type: none"> • Explain procedures in performing adjustments or replacements for noted defects • Explain usage of basic hand tools and portable powered tools • Perform adjustments or replacements for minor defects 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	24 hours
	2.2 Perform basic preventive maintenance servicing (PMS)	<ul style="list-style-type: none"> • Explain procedures in basic preventive maintenance servicing • Enumerate Operator's Serviceable parts • Execute basic preventive maintenance servicing (PMS) 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	2.3 Prepare equipment reports	<ul style="list-style-type: none"> • Explain procedures in accomplishing equipment reports • Explain how to accomplish equipment reports 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	

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3. Perform productive operation for hydraulic excavator	3.1 Travel the hydraulic excavator	<ul style="list-style-type: none"> • Enumerate different road and weather conditions • Identify potential hazards in work area • Explain procedures in responding to unexpected situations • Perform travel operation 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	80 hours
	3.2 Load and unload hydraulic excavator to low-bed trailer/truck	<ul style="list-style-type: none"> • Perform loading and unloading of hydraulic excavator to low-bed trailer • Explain and perform securing of hydraulic excavator • Explain and demonstrate verbal instructions and signals 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	3.3 Perform excavation work	<ul style="list-style-type: none"> • Explain and perform positioning of work equipment • Explain and perform excavation work 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	

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	3.4 Perform loading operation	<ul style="list-style-type: none"> • Explain and perform positioning of hydraulic excavator • Explain and perform loading operation procedures 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	3.5 Perform lifting operation	<ul style="list-style-type: none"> • Explain how to determine weight and classification of the load • Explain how to read and interpret load chart • Explain and perform lifting operation procedures 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	
	3.6 Perform operation using various attachments	<ul style="list-style-type: none"> • Explain usage of various attachment • Explain and perform operation using various attachment 	<ul style="list-style-type: none"> • Lecture • Practical / Demonstration 	<ul style="list-style-type: none"> • Written examination • Demonstration with oral questioning 	