



Model Curriculum

QP Name: Aerial work Platform Operator

QP Code: IES/Q0127

QP Version: 3.0

NSQF Level: 4

Model Curriculum Version: 1.0

Infrastructure Equipment Skill Council, No.45, Jubilee Building (Second Floor), Museum Road,
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Table of Contents

Training Parameters.....	3
Program Overview	4
Training Outcomes.....	4
Compulsory Modules.....	4
Module Details.....	5
Optional Module.....	9
Annexure.....	12
Trainer Requirements	12
Assessor Requirements.....	14
Assessment Strategy	155
References	16
Glossary.....	166
Acronyms and Abbreviations.....	177

Training Parameters

Sector	Infrastructure Equipment
Sub-Sector	Equipment Operation
Occupation	Aerial Work Platform Operator
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/ 8342.2101
Minimum Educational Qualification and Experience	8th Grade pass with 2 year NTC plus 1 year NAC OR 10th Grade pass plus 1 year NTC/ NAC OR 10th Grade pass with 2 years of relevant experience OR 10th Grade pass and pursuing continuous schooling OR 11th Grade Pass
Pre-Requisite License or Training	Light Commercial Vehicle Driving License (LCV) is preferred
Minimum Job Entry Age	18 Years
Last Reviewed On	17/11/2022
Next Review Date	17/11/2025
NSQC Approval Date	17/11/2022
QP Version	3.0
Model Curriculum Creation Date	30/10/2022
Model Curriculum Valid Up to Date	17/11/2025
Model Curriculum Version	1.0
Minimum Duration of the Course	420 Hours
Maximum Duration of the Course	420 Hours

Program Overview

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills

- Demonstrate the operation of Aerial Work Platform.
- Elaborate the process to troubleshoot the defects and rectify them.
- Prepare and maintain the maintenance logbook.
- Explain Health Safety and Environment policies.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

Optional Module - NOS Code - IES/N 0182 - Carry out telehandler equipment operations.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	4	0	0	0	4
NOS Code – IES/N 0179 NOS Name: Carry out pre-operation checks on Aerial Work Platform NOS Version - 3.0 NSQF Level - 4	30	30	30	0	120
NOS Code – IES/N 0180 NOS Name – Carry out aerial work platform equipment operations NOS Version - 3.0 NSQF Level - 4	30	60	30	0	120
NOS Code - IES/N 0181 NOS Name - Carry out maintenance and troubleshooting of the aerial work platform NOS Version - 3.0 NSQF Level - 4	30	30	60	0	120
NOS Code - IES/N 0182 - OPTIONAL NOS Name – Carry out telehandler equipment operations NOS Version - 3.0 NSQF Level - 4	30	30	60	0	120
NOS Code - IES/N 7601 NOS Name - Comply with worksite health and safety guidelines NOS Version - 3.0 NSQF Level - 4	0	60	0	0	60
NOS Code - DST/VSQ/N0101 NOS Name - Employability Skills 30 hrs NOS Version- 1.0	0	30	0	0	30
Total Duration	90	180	150	0	420

Module Details

Module 1: Orientation

Bridge Module

Terminal Outcomes:

- Describe the operations of Infrastructure industry in India.
- Elaborate the skill training schemes in Skill Sector Councils.
- Discuss about different types of job roles available in IESC.
- Explain the roles and responsibilities of the Aerial work platform operator.

Duration: <4:00>	Duration: <0:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe about the scope of employment opportunities in the industry • Explain the roles and responsibilities of the Aerial work platform operator. • Describe the different technical trainings conducted in SSC. 	NIL
Classroom Aids:	
Computer, projector, printer, student table, whiteboard, flip chart, markers and duster	
Tools, Equipment and Other Requirements	

Module 2: Pre-op checks on Aerial Work Platform

Mapped to NOS Code – IES/N0179 v 3.0

Terminal Outcomes:

- Prepare and maintain the maintenance logbook
- Explain the various components of the Aerial Work Platform and their functions.
- Explain the process to check for engine oil leaks and fluid levels.
- Perform the visual inspection of Aerial Work Platform for any damage

Duration: <30:00>	Duration: <90:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Elucidate the organizations procedures and guidelines related to breakdown & maintenance services. • Explain the different types of Aerial work platform and their applications and functions. • Expound the relevance of greasing and oiling crane components that require routine lubrication. • Summarize the use of different controls, levers and switches in order to operate the crane properly. 	<ul style="list-style-type: none"> • Demonstrate the process to ensure the AWP body components is free of cracks and bearing wear. • Employ the procedure to check any hydraulic oil leaks and ensure that the oil level is adequate according to the manufacturer's indication. • Describe the steps to check the tyre pressure and lug nut torque according to the manufacturer's recommendation. • Illustrate the process to check that all structural and other key components are present and in working order. • Prepare and maintain the maintenance logbook in which all actions conducted prior to operating the AWP are recorded.
Classroom Aids:	
Computer, projector, printer, student table, whiteboard, flip chart, markers and duster Manufacturer’s Service and Repair Manual	
Tools, Equipment and Other Requirements	
Safety Gear, Tool Kit, PPE	

Module 3: Operate Aerial Work Platform

Mapped to NOS Code – IES/N0180 v 3.0

Terminal Outcomes:

- Determine the causes of equipment related accidents and associated preventive measure.
- Expound the position and application of Aerial work platform.
- Examine the worksite to identify the soil condition to station the Aerial work platform.
- Determine to ensure the lay down space is free of any impediments.

Duration:<30:00>	Duration:<90:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Determine the safe operation of Aerial work platform. • Introduction to the engine and transmission, as well as their use and purpose. • Describe the proper Aerial work platform maintenance method. • Demonstrate the procedures in working in heights with the Aerial work platform. 	<ul style="list-style-type: none"> • Determine the steps to ensure that the Aerial work platform is stationed on firm ground. • Exercise the procedure to ensure outriggers are extended fully as per manufacturers manual. • Confirm that all necessary safety precautions have been taken in accordance with the safety guidelines. • Demonstrate to check that the wind speeds are within the AWP operational limitations.
Classroom Aids:	
Computer, projector, printer, student table, whiteboard, flip chart, markers and duster Manufacturer’s Service and Repair Manual	
Tools, Equipment and Other Requirements	
Safety Gear, Tool Kit, PPE	

Module 4: Routine maintenance & trouble shooting

Mapped to NOS Code: IES/N0181 v 3.0

Terminal Outcomes:

- Summarize the underlying mechanisms involved in the AWP’s various functions.
- Demonstrate the process to troubleshoot the defects and rectify them.
- Employ the process to carry out the maintenance of Aerial Work Platform.
- Explain the various components of the equipment and their functions.

Duration: <30:00>	Duration: <90:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Outline the organizations procedures and guidelines related to breakdown & maintenance services. • Explain the various components of the equipment and their functions. • Elaborate the use of various control and switches needed to operate the Aerial work platform properly. • Summarize the underlying mechanisms involved in the AWP’s various functions. • Analyze the possible sources of any unusual sound emanating from the engine and other components. 	<ul style="list-style-type: none"> • Determine the process to check crane structure and the following accessories as per operation & maintenance manual • Demonstrate the procedure to check for the following in hydraulic system of AWP as per operation & maintenance manual • Illustrate the right steps to grease all greasing pins and pivot points in accordance with the operation and maintenance handbook • Demonstrate the procedure to check and maintain the tyre rims, air pressure, and wheel nuts.
Classroom Aids:	
Computer, projector, printer, student table, whiteboard, flip chart, markers and duster Manufacturer’s Service and Repair Manual	
Tools, Equipment and Other Requirements	
Safety Gear, Tool Kit, PPE	

Option: Telescopic Handler

Module 5: IES/N0182: Operate and maintain Telescopic handler

Mapped to NOS Code: IES/N 0182 v3.0

Terminal Outcomes:

- Demonstrate the safe operation of the Telescopic Handler.
- Determine the causes of equipment related accidents and associated preventive measure.
- Expound the position and application of Telescopic Handler.
- Examine the worksite to identify the soil condition to station the Telescopic Handler.
- Perform the routine maintenance and troubleshooting of Telescopic Handler.

Duration:<15:00>	Duration:<105:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Determine the safe operation of Telescopic Handler. • Introduction to the engine and transmission, as well as their use and purpose. • Describe the maintenance procedure of Telescopic Handler. • Demonstrate the procedures in working in heights with the Telescopic Handler. 	<ul style="list-style-type: none"> • Determine the steps to ensure that the Telescopic Handler is stationed on firm ground. • Exercise the procedure to ensure outriggers are extended fully as per manufacturer’s manual. • Confirm that all necessary safety precautions have been taken in accordance with the safety guidelines. • Demonstrate to check that the wind speeds are within the Telescopic Handler operational limitations.
Classroom Aids:	
Computer, projector, printer, student table, whiteboard, flip chart, markers and duster Manufacturer’s Service and Repair Manual	
Tools, Equipment and Other Requirements	
Safety Gear, Tool Kit, PPE	

Module 6: Health and safety

Mapped to NOS Code: IES/N 7601 v3.0

Terminal Outcomes:

- Describe the guide lines for health, safety and security requirements.
- Identify the common hazards and risks at workshop.
- Employ safe practices to use the tools and machines.
- Explain emergency procedure to stop and shutdown machinery.
- Carry out basic first-aid treatment for common injuries.
- Demonstrate the operation of fire fighting equipment.
- Elaborate the procedure for storage and disposal of hazardous materials and waste.
- Classify various safety signs, symbols and warnings used in work place.

Duration: <10:00>	Duration: <20:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Describe the Health, safety, environmental (HSE) policies. • Explain the reporting procedure for all HSE activities. • List down the contact details of HSE personnel, in case of emergencies. • Classify the wastes based on non-recyclable, hazardous and recyclable material. 	<ul style="list-style-type: none"> • Show the correct use of Personal Protective Equipment (PPE). • Follow the safe procedure to use Lift. • Perform the operation of fire extinguishers. • Demonstrate the procedure to give basic first aid. • Prepare hazard log register and report incident sand accidents. • Conduct mock drill for dealing with emergency like fire and other calamities.
Classroom Aids:	
Computer, projector, printer, student table, whiteboard, flip chart, marker and duster	
Tools, Equipment and Other Requirements	
Fire Extinguishers, Personal Protective Equipment and other safety gears	

Module 7: Employability Skills

Mapped to NOS: DST/VSQ/N0101

Terminal Outcomes:

At the end of this module, the learner should have acquired the listed knowledge and skills.

- Discuss the importance of Employability Skills in meeting the job requirements
- Show how to practice different environmentally sustainable practices
- Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mind-set in different situations
- Demonstrate how to communicate in a well -mannered way with others
- Demonstrate working with others in a team
- Show how to conduct oneself appropriately with all genders and PwD
- Discuss the significance of reporting sexual harassment issues in time
- Discuss the significance of using financial products and services safely and securely
- Explain the significance of approaching the concerned authorities in time for any exploitation as per legal rights and laws
- Show how to operate digital devices and use the associated applications and features, safely and securely
- Discuss the significance of using internet for browsing, accessing social media platforms, safely and securely
- Discuss the need for identifying opportunities for potential business, sources for arranging money and potential legal and financial challenges
- Explain the significance of identifying customer needs and addressing them
- Create a biodata
- Use various sources to search and apply for jobs
- Discuss the significance of dressing up neatly and maintaining hygiene for an interview
- Discuss how to search and register for apprenticeship opportunities
- Describe opportunities as an entrepreneur

Duration: <00:00>	Duration: <30:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • NA 	<ul style="list-style-type: none"> • Discuss the importance of Employability Skills in meeting the job requirements • Show how to practice different environmentally sustainable practices • Display positive attitude, self -motivation, problem solving, time management skills and continuous learning mind-set in different situations • Demonstrate how to communicate in a well -mannered way with others • Demonstrate working with others in a team • Show how to conduct oneself appropriately with all genders and PwD • Show how to operate digital devices and use the associated applications and features, safely and securely • Explain the significance of identifying customer needs and addressing them • Create a biodata • Use various sources to search and apply for jobs • Discuss the significance of dressing up neatly and maintaining hygiene for an interview • Describe opportunities as an entrepreneur
Classroom Aids:	
Computer, projector, printer, student table, whiteboard/flip chart, marker, duster	
Tools, Equipment and Other Requirements	

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Class VIII		3	2	1	Aerial Work Platform operation	
Trainer Certification						
Domain Certification			Platform Certification			
Certified for Job Role: Aerial Work Platform Operator mapped to QP: IES/Q0127–Version 3.0 Minimum accepted score 70%			Certified for Job Role: Aerial Work Platform Operator Minimum accepted score 70%			

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training/Assessment Experience		Remarks
		Years	Specialization	Years	Specialization	
Class VIII		3	2	1	Aerial Work Platform operation	

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role: Aerial Work Platform Operator mapped to QP: IES/Q0127–Version 3.0 Minimum accepted score 70%	Certified for Job Role: Aerial Work Platform Operator Minimum accepted score 70%



Assessment Strategy

Criteria for assessment for Qualification Pack has been laid down based on the NOS's.

Each Performance Criteria (PC) has been assigned marks proportional to its importance within NOS and weightages have also been given among the NOSs accordingly.

The assessment of the theory/knowledge will be based on written test/viva or both while skill test shall be hands on practical.

Behavior and attitude will be assessed while performing the assigned task.

The assessment shall be done as per the guidelines formulated by IESC.

The assessment agencies in consultation with IESC will create unique question papers for theory/knowledge and practical skills at each IESC accredited testing centers (as per assessment criteria below)

To pass the Qualification Pack, every trainee should score a minimum of 70%.

In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification pack.

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training.
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module. A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

Term	Description
QP	Qualification Pack
NSQF	National Skills Qualification Framework
NSQC	National Skills Qualification Committee
NOS	National Occupational Standards
PMKVY	Pradhan Mantri Kaushal Vikas Yojana
QRC	Qualification Review Committee
SSC	Sector Skill Council
SDMS	Skill Development Management System
SIP	Skill India Portal
HSE	Health Safety Environment
PPE	Personal Protective Equipment
PwD	Persons with disabilities