

QUALIFICATION PACK – OCCUPATIONAL STANDARD FOR INFRASTRUCTURE EQUIPMENT INDUSTRY

What are Occupational Standards(OS)?

- OS describe what individuals need to do, know and understand in order to carry out a particular job role or function
- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

Contact Us:

Infrastructure
Equipment Skill Council

E-mail:

standards@iescindia.com

Ph no: +91 80 4212 6666



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Introduction

Qualification Pack - Junior Paver Operator/Screedman

SECTOR:	INFRASTRUTURE EQUIPMENT
SUB SECTOR:	Equipment Operations
OCCUPATION:	Operator
REFERENCE ID:	IES/Q0121
ALIGNED TO:	NCO-2004/NIL

Brief Job Description: A junior paver operator/screedman assists in operating the screed of the paver vehicle, controls the quantity and consistency of asphalt that is deposited. He is required to assist the operator in performing the operations on the site.

Personal Attributes: The job requires an individual to be physically agile, strong and should have good eye sight. He should maintain constant alertness to the multiple concurrent activities of paver operations, including the activities of other employees, contractors, labourers, etc. He should possess basic math skills and is required to be mentally alert at all times.

Qualifications Pack Code	IES/Q0121		
Job Role	Junior Paver Operator/Screedman		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure Equipment	Drafted on	14/04/16
Sub-sector	Equipment Operations	Last reviewed on	26/04/16
Occupation	Operator	Next review date	30/04/18
NSQC Clearance on	NA		

Job Role	Junior Paver Operator/Screedman
Role Description	A junior paver operator/screedman assists in operating the screed of the paver vehicle, controls the quantity and consistency of asphalt that is deposited. He is required to assist the operator in performing the operations on the site.
NSQF level	3
Minimum Educational Qualifications	Class VIII preferably.
Maximum Educational Qualifications	NA
Training (Suggested but not mandatory)	Certification Training in Paver Operation preferred
Minimum Job Entry Age	18 Years
Experience	Preferably 6 months to 1 year experience in assisting the junior operator in paver operations
Applicable National Occupational Standards (NOS)	<p>Compulsory</p> <ol style="list-style-type: none"> IES/N0161 Assist in carrying out Pre-operational checks on the paver IES/N0162 Assist in operating a paver IES/N0163 Assist in regular maintenance of the paver IES/N7601 Comply with worksite health and safety guidelines <p>Optional: N.A.</p>
Performance Criteria	As described in the relevant OS units

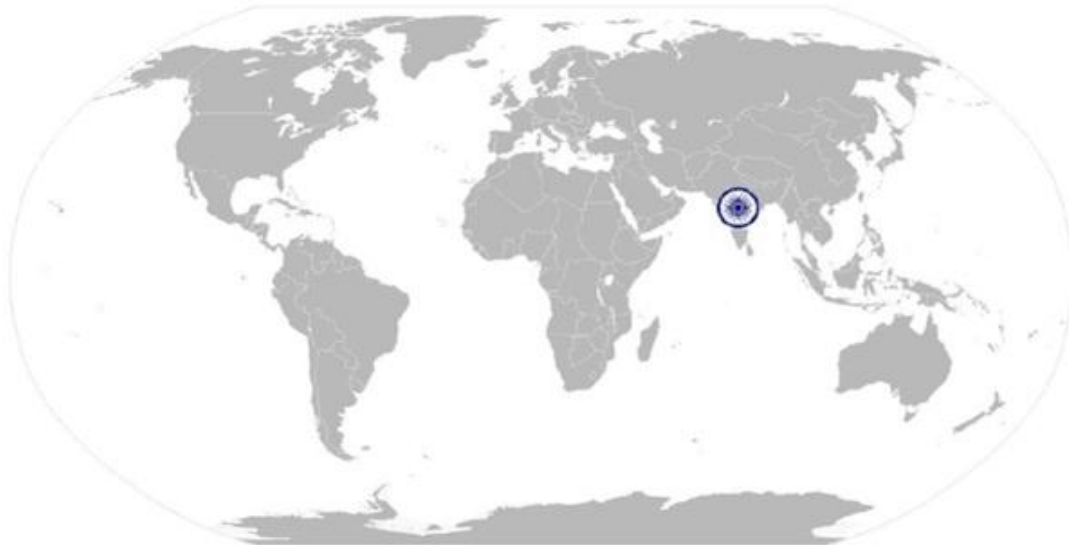
Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Sub-functions	Sub-functions are sub-activities essential to fulfil achieving the objectives of the function.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
Occupational Standards (OS)	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding; he/she needs to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack(QP)	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an Occupational Standard, which is denoted by an 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to find the required one.
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of required performance.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform up to the required standard.

Acronyms	Keywords /Terms	Description
	OS	Occupational Standard(s)
	NOS	National Occupational Standard(s)
	QP	Qualifications Pack
	NSQF	National Skill Qualifications Framework
	ITI	Industrial Training Institute
	HCV	Heavy Commercial Vehicle
	SHE	Safety Health and Environment
	SOP	Standard Operating Procedure
TBD	To Be Determined	

IES/N0161

Assist in carrying out Pre-operational checks on the paver

National Occupational Standard



Overview

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that need to be carried out to assist pre-operational checks on screed in paver machines.

IES/N0161
Assist in carrying out Pre-operational checks on the paver

National Occupational Standard

Unit Code	IES/N0161
Unit Title (Task)	Assist in carrying out Pre-operational checks on the paver
Description	This unit provides insight into activities that need to be carried out to assist pre-operational checks on screed in paver machines.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Pre-operational checks • Reporting and documentation
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Pre-operational checks	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC1. Visually inspect the machine with supervisor for any malfunctioning, missing or broken parts PC2. Check that all the instruction and safety labels are in place and readable PC3. Assist in checking general hydraulic hoses/fittings for any leaks in the paver as per instructions from the operator PC4. Inspect screed for excessive wear as per the operational manual PC5. Inspect screed heaters and gas lines for serviceability as per instructions from the operator PC6. Inspect screed plate, tamping bar and screed attack angle for any damages PC7. Check for excessive play in crown jack and their mountings as per instructions from the operator PC8. Check for smooth operation of the mat thickness adjusting screws PC9. Check the various controls-augers, screed, sensing and control equipment as per instructions from the operator PC10. Check for the bolt tightness on screed for free plying a per instructions from the operator
Reporting and documentation	<ul style="list-style-type: none"> PC11. Assist in maintaining a checking/maintenance logbook to record all activities performed before starting the paver operation PC12. Report defects precisely to the operator/ supervisor if beyond scope of the role
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> KA1. The organization's procedures and guidelines related to breakdown & maintenance services KA2. Reporting structure in the company KA3. Timeframe in which the complaint/problem should be resolved KA4. Contact person in case of queries on procedure or equipment's KA5. Location and process for storage and disposal of waste material KA6. Safety policy of the company; includes the customer and manufacturer policy KA7. Location of tools

IES/N0161

Assist in carrying out Pre-operational checks on the paver

<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Types of pavers</p> <ul style="list-style-type: none"> - Wheeled pavers - Tracked pavers <p>KB2. Primary parts of Paver</p> <ul style="list-style-type: none"> - Tractor unit - Screed unit <p>KB3. Components of Tractor unit and screed unit and its functioning</p> <ul style="list-style-type: none"> - Truck push rollers - Mixture receiving hopper - Material flow gates - Two slat conveyors and - A pair of distributor augers - Burners, - Rod-extensions and auger extension flights, strike-off plates and safety guards for the auger tunnel - Match-height - Straight Line indicator rod kept below the push rollers in from of machine - Vibration, Pressure Bar and Tamping system on the screed <p>KB4. Attachments for Paver and its uses</p> <ul style="list-style-type: none"> - Reference ski – Also known as Big-Ski - Cut-off Plates / Strike-off plates - Screed and auger extensions, auger tunnel extension plates and safety guard frames - Night Lights - Automatic sensor system (Includes the Grade and Slope sensor and the controller units) <p>KB5. Basic Hydro-electrical functioning and repairs</p> <p>KB6. Screed mechanism and its uses</p> <p>KB7. Procedure of filling diesel, coolant in the machine</p> <p>KB8. The various types of hand signals used on the site</p> <p>KB9. Different types of machine guards for equipment</p>
<p>Skills (S)</p>	
<p>A. Core Skills / Generic Skills</p>	<p>Writing Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA1. Record any deviations/ incidents as per prescribed norms</p> <p>Reading Skills</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA2. Read and comprehend basic English to read manuals of operations, guidelines, etc.</p> <p>SA3. Comprehend basic sign and symbols at the worksite</p> <p>Oral Communication (Listening and Speaking Skills)</p> <p>The user/ individual on the job needs to know and understand how to:</p> <p>SA4. Use correct technical terms while interacting with the operator/</p>

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Assist in carrying out Pre-operational checks on the paver

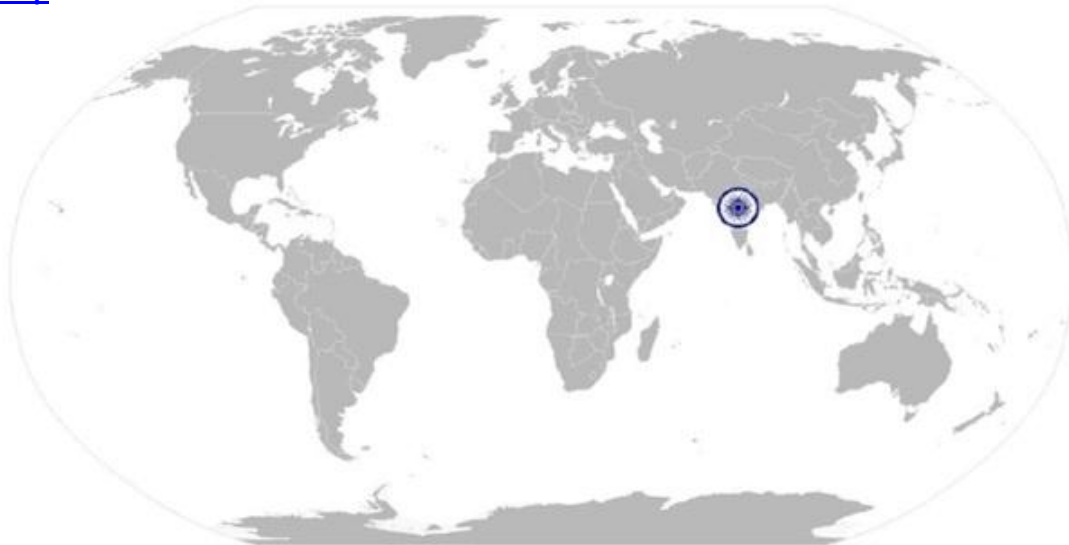
	supervisor
B. Professional Skills	Decision Making
	The user/ individual on the job needs to know and understand how to: SB1. Decide when to conduct maintenance checks on the screed as per manufacturer specifications
	Plan and Organize
	The user/ individual on the job needs to know and understand how to: SB2. Work with supervisors/ team mates to carry out work related tasks SB3. Plan for cleaning and lubricating the appropriate equipment every day
	Customer Centricity
	The user/ individual on the job needs to know and understand how to: SB4. Provide service of the highest order to ensure customer satisfaction
	Problem Solving
	The user/ individual on the job needs to know and understand how to: SB5. Identify immediate or temporary solutions to resolve mechanical issues SB6. Judge when to seek assistance from supervisor
	Analytical Thinking
The user/ individual on the job needs to know and understand how to: SB7. Identify cause and effect relations in his area of work	
Critical Thinking	
The user/ individual on the job needs to know and understand how to: SB8. Analyze, evaluate and apply the information gathered from observation, experience, reasoning, and communication to act efficiently	

IES/N0161 Assist in carrying out Pre-operational checks on the paver

NOS Version Control

NOS Code	IES/N0161		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure Equipment	Drafted on	14/04/16
Industry Sub-sector	Equipment Operations	Last reviewed on	26/04/16
Occupation	Operator	Next review date	30/04/18

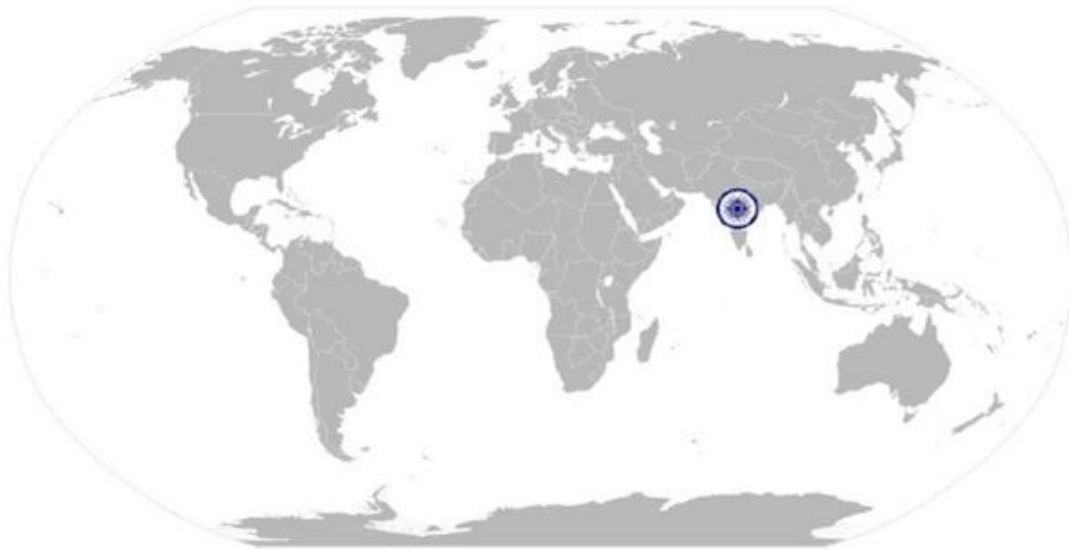
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IES/N0162

Assist in operating a paver

National Occupational Standard



Overview

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are required for operating screed in paver machine

IES/N0162
Assist in operating a paver

Unit Code	IES/N0162
Unit Title (Task)	Assist in operating a paver
Description	This unit provides insight into activities that are required for operating screed in paver machine
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Screed Operations • Reporting and documentation
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Screed Operations	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC1. Ensure the screed is clean and properly adjusted for the type of paving to be completed – Crown, cross-slope, etc. PC2. Assist in pre-heating of paving screed before placement of asphalt PC3. Monitor and control temperature settings of the asphalt mixture as per instructions from the operator PC4. Adjust the screed paving reference components to the project specification, paving, width, depth (thickness), grade and slope in accordance with manufacturer's instructions PC5. Establish the screed-plate angle of attack, position of pre-strike-off plates, and other components PC6. Maintain proper contact between gates and the paving surface as per the requirement PC7. Adjust springs and chains for clearance as per instructions from the operator PC8. Assist the paver operator to fill the auger chamber PC9. Check mat thickness and adjust controls as needed to maintain yield PC10. Observe distribution of asphalt materials along the screed and control the direction of the screed to eliminate voids at curbs and joints PC11. Assist in navigating the direction of the paver as per the requirement of the surface PC12. Operate and manipulate cranks and tow points on the back of the asphalt machine that spreads and levels asphaltic concrete on surfaces PC13. Observe distribution of asphalt materials from the hopper to the conveyor and to the auger along the screed width PC14. Assist the paver operator in attaching extensions to screed to adjust width as per the requirement PC15. Carryout adding or removing accessories associated with asphalt equipment as per instructions from the operator PC16. Inform operator/ supervisor of any screed problems during paver operations
Reporting and documentation	<ul style="list-style-type: none"> PC17. Assist the operator in recording input and output flow as per the desired formats of the organization

IES/N0162

Assist in operating a paver

Knowledge and Understanding (K)	
<p>A. Organizational Context (Knowledge of the company / organization and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. The organization's procedures and guidelines related to breakdown & maintenance services</p> <p>KA2. The performance standards & procedures followed in the company</p> <p>KA3. Reporting structure in the company</p> <p>KA4. Timeframe in which the complaint/problem should be resolved</p> <p>KA5. Contact person in case of queries on procedure or equipment's</p> <p>KA6. Location and process for storage and disposal of waste material</p> <p>KA7. Safety policy of the company; includes the customer and manufacturer policy</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Types of pavers</p> <ul style="list-style-type: none"> - Wheeled pavers - Tracked pavers <p>KB2. Primary parts of Paver</p> <ul style="list-style-type: none"> - Tractor unit - Screed unit <p>KB3. Components of Tractor unit and screed unit and its functioning</p> <ul style="list-style-type: none"> - Truck push rollers, - Mixture receiving hopper, - Material flow gates, - Two slat conveyors and - A pair of distributor augers. - Burners, - Rod-extensions and auger extension flights, strike-off plates and safety guards for the auger tunnel - Match-height - Straight Line indicator rod kept below the push rollers in from of machine - Vibration, Pressure Bar and Tamping system on the screed <p>KB4. Attachments for Paver and its uses</p> <ul style="list-style-type: none"> - Reference ski – Also known as Big-Ski - Cut-off Plates / Strike-off plates - Screed and auger extensions, auger tunnel extension plates and safety guard frames - Night Lights - Automatic sensor system (Includes the Grade and Slope sensor and the controller units) <p>KB5. Basics of road laying</p> <p>KB6. Screed mechanism and its uses</p> <p>KB7. The various types of hand signals used on the site</p> <p>KB8. Different types of machine guards for equipment</p> <p>KB9. Road safety rules and signs</p>

IES/N0162

Assist in operating a paver

Skills (S)	
A. Core Skills / Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. Record any deviations/ incidents as per prescribed norms
	Reading Skills
	The user/ individual on the job needs to know and understand how to: SA2. Read and comprehend basic English and regional language as applicable to read manuals of operations, guidelines, etc. SA3. Comprehend basic sign and symbols at the worksite
	Oral Communication (Listening and Speaking Skills)
B. Professional Skills	The user/ individual on the job needs to know and understand how to: SA4. Give clear instructions to co-workers, subordinates and other persons SA5. Use correct technical terms while interacting with operator/supervisor
	Decision Making
	The user/ individual on the job needs to know and understand how to: SB1. Decide when to conduct maintenance checks as per manufacturer specifications
	Plan and Organize
	The user/ individual on the job needs to know and understand how to: SB2. Work with supervisors/ team mates to carry out work related tasks SB3. Plan work according to the required schedule and location
	Customer Centricity
	The user/ individual on the job needs to know and understand how to: SB4. Provide service of the highest order to ensure customer satisfaction
	Problem Solving
	The user/ individual on the job needs to know and understand how to: SB5. Identify immediate or temporary solutions to resolve mechanical issues SB6. Judge when to seek assistance from operator/supervisor
	Analytical Thinking
	The user/ individual on the job needs to know and understand how to: SB7. Identify cause and effect relations in his area of work
	Critical Thinking
	The user/ individual on the job needs to know and understand how to: SB8. Analyze, evaluate and apply the information gathered from observation, experience, reasoning, and communication to act efficiently

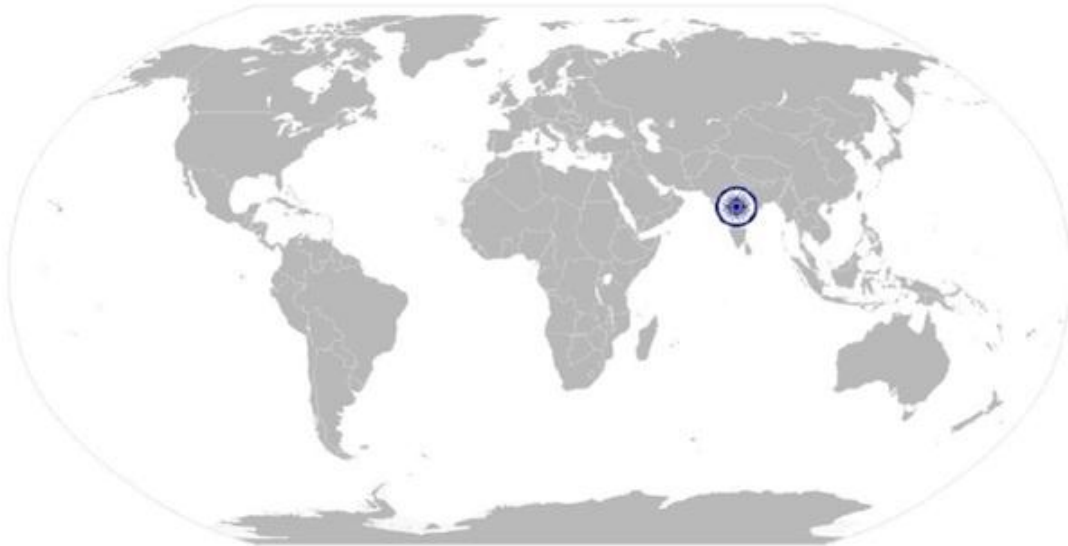
IES/N0162

Assist in operating a paver

NOS Version Control

NOS Code	IES/N0162		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure Equipment	Drafted on	14/04/16
Industry Sub-sector	Equipment Operations	Last reviewed on	26/04/16
Occupation	Operator	Next review date	30/04/18

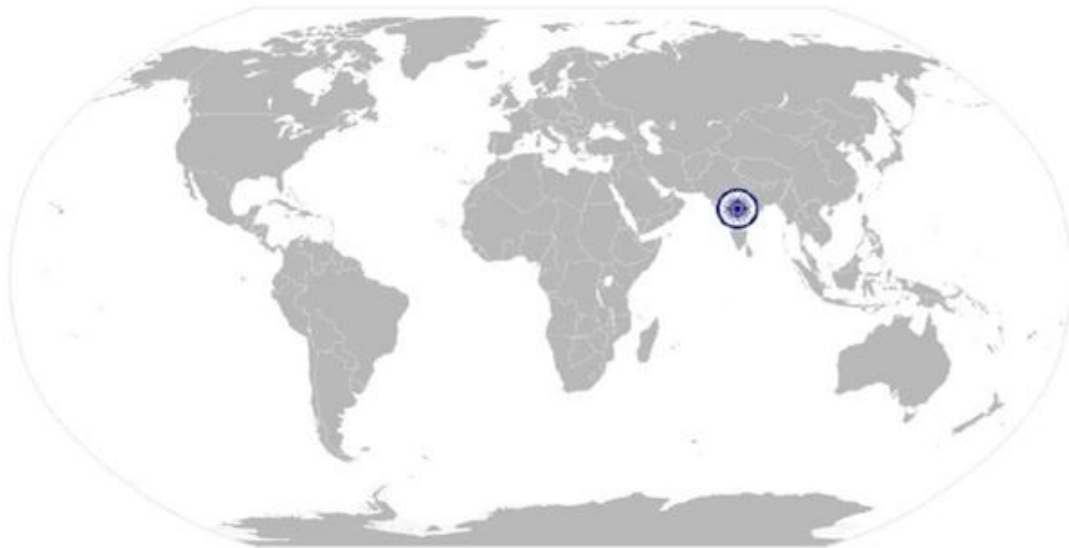
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IES/N0163

Assist in regular maintenance of the paver

National Occupational Standard



Overview

This unit provides Performance Criteria, Knowledge & Understanding and Skills & Ability for activities that are required for performing routine maintenance and troubleshooting of screed

IES/N0163
Assist in regular maintenance of the paver

Unit Code	IES/N0163
Unit Title (Task)	Assist in regular maintenance of the paver
Description	This unit provides insight into activities that are required for performing routine maintenance and troubleshooting of screed
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Routine maintenance • Repair and troubleshooting • Documentation and reporting
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Routine maintenance	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC1. Check and lubricate all screed points as per manufacturer specifications PC2. Remove any debris from screed and check for hose leaks / cylinders leaks PC3. Spray cleaning solvent or release agent on the screed plate, hopper, etc., any place that has come in contact with the mix PC4. Lubricate all grease fittings on the auger flight screw, the fitting on the depth screw, and the fittings on the flange bearings located on top of the extension screed. Grease nuts on extension screws PC5. Check screws on the rod extensions, tilt screws on the screed pivot PC6. Check screed crown on chain and turn buckles for wear and tear PC7. Ensure all the tools are kept in the designated place after usage as per organizational guidelines PC8. Perform housekeeping activities wherever required
Repair and troubleshooting	<ul style="list-style-type: none"> PC9. Use appropriate tools while troubleshooting PC10. Diagnose the problem PC11. Dispose waste as per the guidelines of the site/ organization
Documentation and reporting	<ul style="list-style-type: none"> PC12. Follow reporting procedures as laid down by the employer PC13. Assist in completing all documentation in the prescribed standards in a timely manner PC14. Report defects precisely to the operator/ supervisor if beyond scope of his role
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> KA1. The organization's procedures and guidelines related to breakdown & maintenance services KA2. The performance standards & procedures followed in the company KA3. Reporting structure in the company KA4. Timeframe in which the complaint/problem should be resolved KA5. Location of tools KA6. Contact person in case of queries on procedure or products KA7. Location and process for storage and disposal of waste material KA8. Safety policy of the company includes the customer and manufacturer

IES/N0163

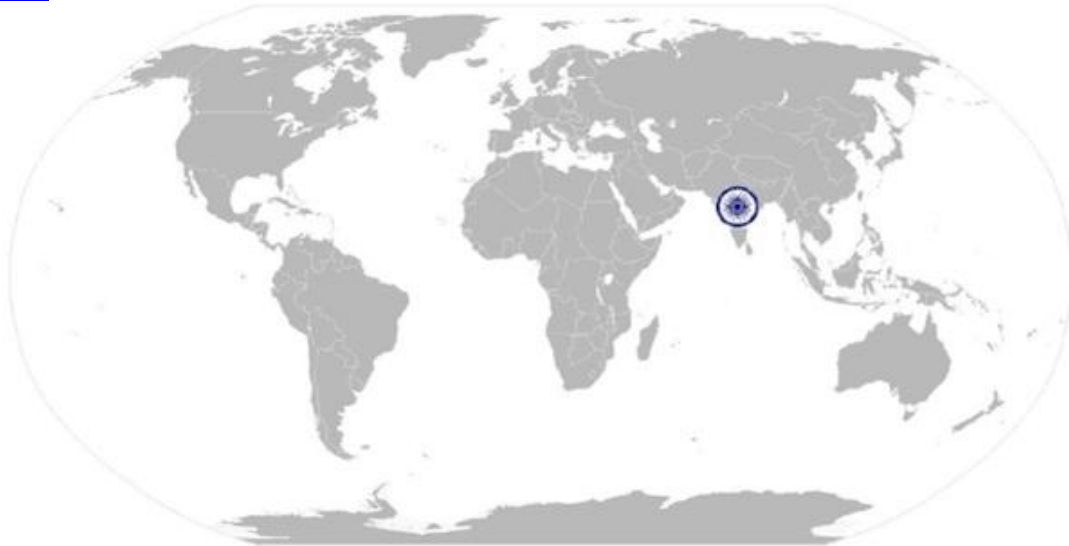
Assist in regular maintenance of the paver

	policy
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. Responsibilities of the assigned job role</p> <p>KB2. Basic physics and mechanics involved in various functions of the paver</p> <p>KB3. Common defects and general causes of breakdown.</p> <p>KB4. Response to emergency situations.</p> <p>KB5. The optimal levels of control indicators e.g. temperature and all buttons on the screed control units</p>
Skills (S)	
A. Core Skills / Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. Record any deviations/ incidents as per prescribed norms
	Reading Skills
	The user/ individual on the job needs to know and understand how to: SA2. Read and comprehend basic English to read manuals of operations, guidelines, etc. SA3. Read instructions, guidelines/procedures/rules related to the worksite and equipment operations
	Oral Communication (Listening and Speaking Skills)
The user/ individual on the job needs to know and understand how to: SA4. Give clear instructions to co-workers, subordinates and other persons SA5. Use correct technical terms while interacting with supervisor	
B. Professional Skills	Decision Making
	The user/ individual on the job needs to know and understand how to: SB1. Decide when to conduct maintenance checks as per manufacturer specifications
	Plan and Organize
	The user/ individual on the job needs to know and understand how to: SB2. Work with supervisors/ team mates to carry out work related tasks SB3. Plan work according to the required schedule and location SB4. Plan for cleaning and lubricating the appropriate equipment every day
	Customer Centricity
	The user/ individual on the job needs to know and understand how to: SB5. Provide service of the highest order to ensure customer satisfaction
	Problem Solving
	The user/ individual on the job needs to know and understand how to: SB6. Identify immediate or temporary solutions to resolve mechanical issues SB7. Judge when to seek assistance from supervisor
	Analytical Thinking
	The user/ individual on the job needs to know and understand how to: SB8. Identify cause and effect relations in his area of work
Critical Thinking	
The user/ individual on the job needs to know and understand how to: SB9. Analyze, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently	

IES/N0163 **Assist in regular maintenance of the paver**
NOS Version Control

NOS Code	IES/N0163		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure Equipment	Drafted on	14/04/16
Industry Sub-sector	Equipment Operations	Last reviewed on	26/04/16
Occupation	Operator	Next review date	30/04/18

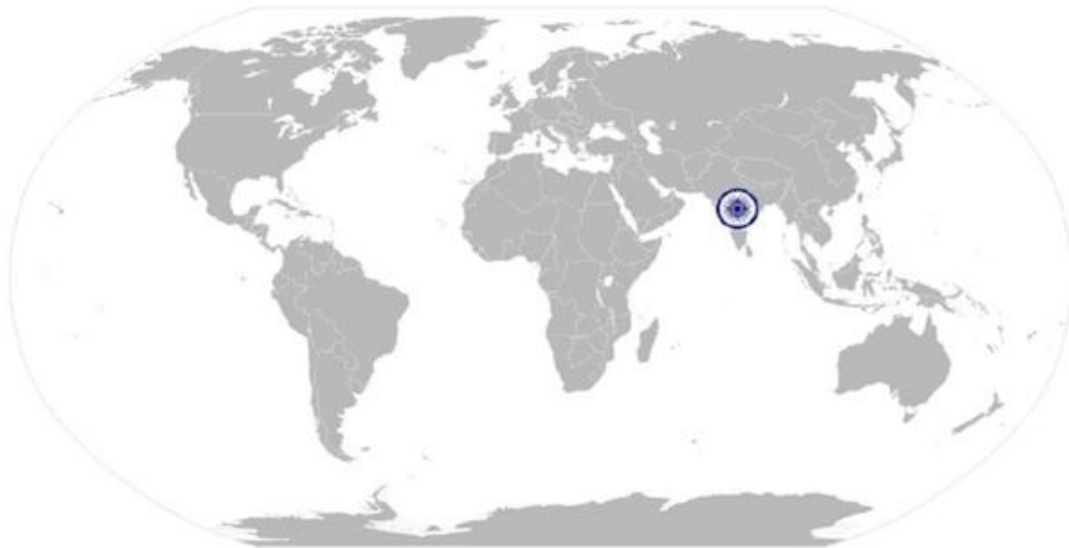
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IES/N7601

Comply with worksite health and safety guidelines

National Occupational Standard



Overview

This unit is about adhering to health and safety requirements at the worksite during equipment operations.

IES/N7601

Comply with worksite health and safety guidelines

National Occupational Standard

Unit Code	IES/N7601
Unit Title (Task)	Comply with worksite health and safety guidelines
Description	This unit is about adhering to health and safety requirements at the worksite during equipment operations.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> • Worksite health and safety
Performance Criteria(PC) w.r.t. the Scope	
Element	Performance Criteria
Worksite health and safety	To be competent, the user/individual on the job must be able to: PC1. Comply with safety, health, security and environment related regulations/ guidelines at the work site PC2. Use Personal Protective Equipment (PPE) and other safety gear as applicable to the equipment and the worksite PC3. Follow safety measures during operations to ensure that the health and safety of self or others (including members of the public) is not at risk PC4. Carry out operations as per the manufacturer's and worksite related health and safety guidelines PC5. Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines PC6. Operate various grades of fire extinguishers, as applicable PC7. Support in administering basic first aid and report to concerned team members, as required, in case of an accident PC8. Respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility PC9. Record and report details related to operations, incidents or accidents, as applicable
Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Health, safety, environmental(HSE) and security related policies/ guidelines of the organization and the worksite and its importance KA2. Personnel responsible for Health, Safety and environment (HSE) related matters and their contact details KA3. Location of worksite storage, HSE team and safe assembly points KA4. Reporting and documentation procedures for HSE and security matters
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Manufacturer's guidelines related to health and safety requirements KB2. Common types of health, safety, environment and security risks related to the worksite and operations KB3. Types, use and importance of Personal Protective Equipment (PPE) and other safety gear KB4. Safe working practices to avoid common hazards and risks KB5. Guidelines for transport, storage and disposal of hazardous materials

IES/N7601

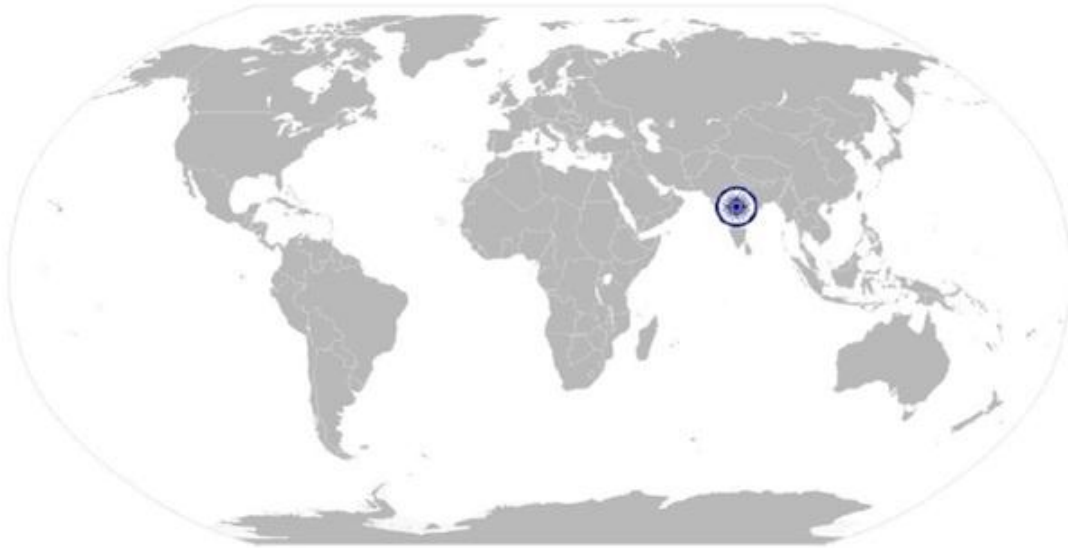
Comply with worksite health and safety guidelines

	<p>and waste</p> <p>KB6. Types of common hazards and risks at the worksite including fire, electrical, gas emergencies, accidents, incidents, structure collapse, machine breakdown</p> <p>KB7. Knowledge of safe lockdown/ stop of machinery use in case of emergencies and incidents/ accidents</p> <p>KB8. Types of fire extinguishers and their use</p> <p>KB9. Common injuries and appropriate basic first aid treatment e.g. electrical shock, bleeding, wounds, fractures, minor burns, eye injuries</p>
Skills (S)	
A. Core Skills / Generic Skills	Writing Skills
	The user/ individual on the job needs to know and understand how to: SA1. Document and report any health and safety related incidents/ accidents
	Reading Skills
	The user/ individual on the job needs to know and understand how to: SA2. Read and comprehend basic symbols and signage related health and safety SA3. Read organizational and equipment related health and safety manuals and documents SA4. Read instructions, guidelines/procedures/rules related to the worksite and equipment operations
	Oral Communication (Listening and Speaking Skills)
	The user/ individual on the job needs to know and understand how to: SA5. Give clear instructions to co-workers, subordinates and other personnel SA6. Use correct technical terms while interacting with supervisor
B. Professional Skills	Decision Making
	The user/ individual on the job needs to know and understand how to: SB1. Make an appropriate timely decision in responding to emergencies/accidents in line with organizational/ worksite guidelines SB2. Use correct PPE and other safety gear while at the worksite
	Plan and Organize
	The user/ individual on the job needs to know and understand how to: SB3. Work with supervisors/ team mates to carry out work related tasks SB4. Plan work according to the required schedule and location
	Customer Centricity
	The user/ individual on the job needs to know and understand how to: SB5. Build and maintain positive and effective relationships with colleagues and customers
	Problem Solving
The user/ individual on the job needs to know and understand how to: SB6. Seek appropriate assistance from other sources to resolve problems	
Analytical Thinking	
The user/ individual on the job needs to know and understand how to: SB7. Assess the intensity of the fire accident and operate fire extinguishers	

IES/N7601

Comply with worksite health and safety guidelines

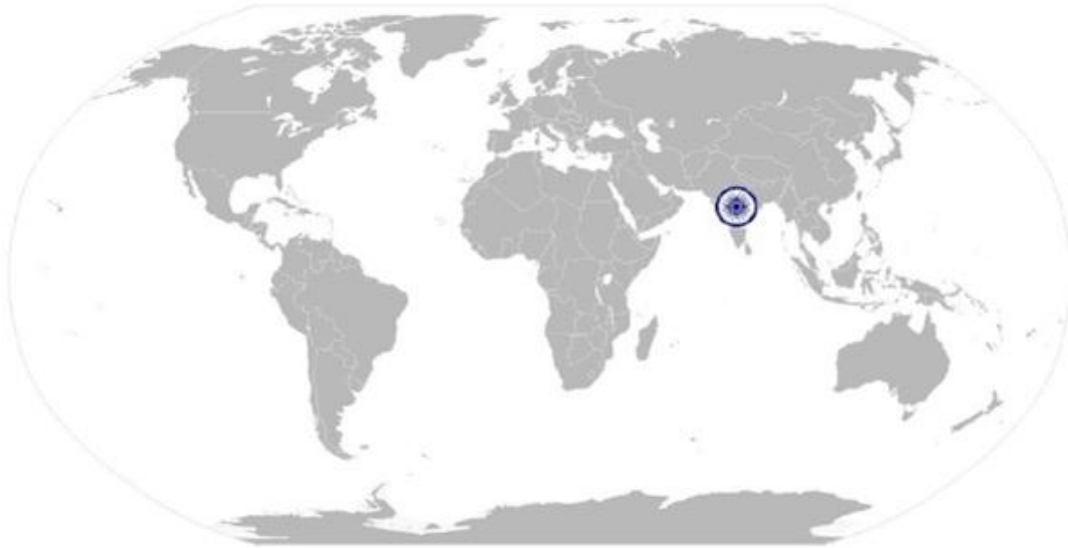
	<p>Critical Thinking</p> <p>The user/ individual on the job needs to know and understand how to: SB8. Analyse, evaluate and apply the information gathered from observation, experience, reasoning, or communication to act efficiently</p>
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IES/N7601 **Comply with worksite health and safety guidelines**
NOS Version Control

NOS Code	IES/N7601		
Credits(NSQF)	TBD	Version number	1.0
Sector	Infrastructure Equipment	Drafted on	14/04/16
Industry Sub-sector	Equipment Operations	Last reviewed on	26/04/16
Occupation	Operator	Next review date	30/04/18

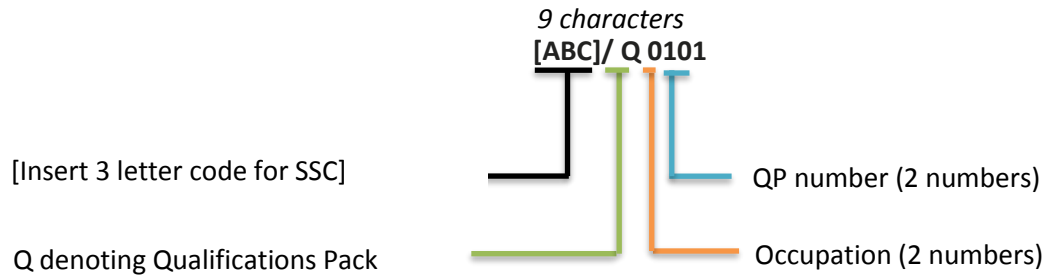
[Back To Top](#)



Annexure

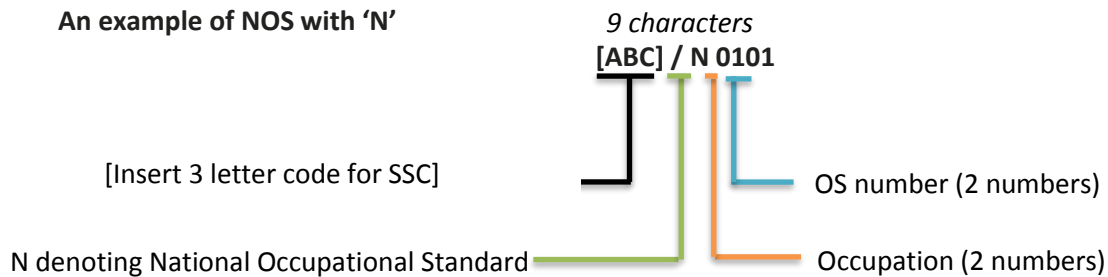
Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard

An example of NOS with 'N'



The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
Equipment Operations	1 to 10
Equipment Service and spares	11 to 20
Equipment Production	21 to 40
Equipment Sales	41 to 50
Equipment Financing	51 to 55
Core Enablers	56 to 65
Other Enablers	66 to 75
Common Occupations	76 to 85

Sequence	Description	Example
Three letters	Industry name	IES
Slash	/	/
Next letter	Whether QP or NOS	N
Next two numbers	Occupation code	01
Next two numbers	OS number	01

CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Junior Paver Operator/Screeedman

Qualification Pack IES/Q0121

Sector Skill Council IESC

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack, every trainee should score a minimum of 40% in each NOS and 50% aggregate.
6. 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.

Total Marks: 100				Marks Allocation	
Assessment Outcomes	Assessment Criteria for outcomes	Total Marks	Out Of	Theory	Skills Practical
1. IES/N0161_Assist in carrying out pre-operational checks on the paver	PC1. Visually inspect the machine with supervisor for any malfunctioning, missing or broken parts	35	3	1	2
	PC2. Check that all the instruction and safety labels are in place and readable		2.5	0.5	2
	PC3. Assist in checking general hydraulic hoses/fittings for any leaks in the paver as per instructions from the operator		3	1	2
	PC4. Inspect screed for excessive wear as per the operational manual		3	1	2

	PC5. Inspect screed heaters and gas lines for serviceability as per instructions from the operator		3	1	2
	PC6. Inspect screed plate, tamping bar and screed attack angle for any damages		3	1	2
	PC7. Check for excessive play in crown jack and their mountings as per instructions from the operator		3	1	2
	PC8. Check for smooth operation of the mat thickness adjusting screws		3	1	2
	PC9. Check the various controls-augers, screed, sensing and control equipment as per instructions from the operator		3	1	2
	PC10. Check for the bolt tightness on screed for free plying a per instructions from the operator		2.5	0.5	2
	PC11. Assist in maintaining a checking/maintenance logbook to record all activities performed before starting the paver operation		3	1	2
	PC12. Report defects precisely to the operator/ supervisor if beyond scope of the role		3	1	2
		Total	35	11	24
2. IES/N0162_Assist in operating a paver	PC1. Ensure the screed is clean and properly adjusted for the type of paving to be completed – Crown, cross-slope, etc.	30	2	1	1
	PC2. Assist in pre-heating of paving screed before placement of asphalt		1	0	1
	PC3. Monitor and control temperature settings of the asphalt mixture as per instructions from the operator		2	1	1

	PC4. Adjust the screed paving reference components to the project specification, paving, width, depth (thickness), grade and slope in accordance with manufacturer's instructions		2	1	1
	PC5. Establish the screed-plate angle of attack, position of pre-strike-off plates, and other components		2	0	2
	PC6. Maintain proper contact between gates and the paving surface as per the requirement		1	0	1
	PC7. Adjust springs and chains for clearance as per instructions from the operator		2	1	1
	PC8. Assist the paver operator to fill the auger chamber		1	0	1
	PC9. Check mat thickness and adjust controls as needed to maintain yield		3	1	2
	PC10. Observe distribution of asphalt materials along the screed and control the direction of the screed to eliminate voids at curbs and joints		1	0	1
	PC11. Assist in navigating the direction of the paver as per the requirement of the surface		3	1	2
	PC12. Operate and manipulate cranks and tow points on the back of the asphalt machine that spreads and levels asphaltic concrete on surfaces		1	0	1
	PC13. Observe distribution of asphalt materials from the hopper to the conveyor and to the auger along the screed width		3	1	2

	PC14. Assist the paver operator in attaching extensions to screed to adjust width as per the requirement		1	0	1
	PC15. Carryout adding or removing accessories associated with asphalt equipment as per instructions from the operator		1	0	1
	PC16. Inform operator/ supervisor of any screed problems during paver operations		2	1	1
	PC17. Assist the operator in recording input and output flow as per the desired formats of the organization		2	1	1
		Total	30	9	21
3. IES/N0163_Assist in regular maintenance of the paver	PC1. Check and lubricate all screed points as per manufacturer specifications	20	1	0	1
	PC2. Remove any debris from screed and check for hose leaks / cylinders leaks		2	1	1
	PC3. Spray cleaning solvent or release agent on the screed plate, hopper, etc., any place that has come in contact with the mix		1	0	1
	PC4. Lubricate all grease fittings on the auger flight screw, the fitting on the depth screw, and the fittings on the flange bearings located on top of the extension screed. Grease nuts on extension screws		2	1	1
	PC5. Check screws on the rod extensions, tilt screws on the screed pivot		1	0	1
	PC6. Check screed crown on chain and turn buckles for wear and tear		1	0	1

	PC7. Ensure all the tools are kept in the designated place after usage as per organizational guidelines		2	1	1
	PC8. Perform housekeeping activities wherever required		1	0	1
	PC9. Use appropriate tools while troubleshooting		2	1	1
	PC10. Diagnose the problem		1	0	1
	PC11. Dispose waste as per the guidelines of the site/ organization		1	0	1
	PC12. Follow reporting procedures as laid down by the employer		1.5	0.5	1
	PC13. Assist in completing all documentation in the prescribed standards in a timely manner		2	1	1
	PC14. Report defects precisely to the operator/ supervisor if beyond scope of his role		1.5	0.5	1
		Total	20	6	14
4. IES/N7601 Comply with worksite health and safety guidelines	PC1. Comply with safety, health, security and environment related regulations/ guidelines at the work site	15	2	1	1
	PC2. Use Personal Protective Equipment (PPE) and other safety gear as applicable to the equipment and the worksite		2	1	1
	PC3. Follow safety measures during operations to ensure that the health and safety of self or others (including members of the public) is not at risk		2	0	2
	PC4. Carry out operations as per the manufacturer's and worksite related health and safety guidelines		1	0	1

	PC5. Handle the transport, storage and disposal of hazardous materials and waste in compliance with worksite health, safety and environmental guidelines		2	1	1
	PC6. Operate various grades of fire extinguishers, as applicable		1	0	1
	PC7. Support in administering basic first aid and report to concerned team members, as required, in case of an accident		2	1	1
	PC8. Respond promptly and appropriately to an accident/ incident or emergency situation, within limits of your role and responsibility		1	0	1
	PC9. Record and report details related to operations, incidents or accidents, as applicable		2	1	1
		Total	15	5	10
Grand Total			100	31	69