Functional Analysis- Aerial Work Platform Operator

Role	**Aerial Work Platform Operator**	
Job Purpose	Aerial work platform operator is responsible to raise workmen to an elevated work position supported by scissors, masts and booms to and from places in a safe and secured manner depending on the requirement	
Function	**1**	Carry out Pre-operation checks on Aerial Work Platform
Purpose	**P1**	• Pre- operation checks • Reporting and documentation
Pre Operation Checks		PC1. Check tires for damages and bulges
		PC2. Check wheels for loose lug bolts, bent rims, cracks
		PC3. Check the equipment for any damage- cracks, misalignment, welds, excess mast movement, locking pins
		PC4. Check the hydraulic system reservoir, engine crankcase, engine coolant, transmission, air filter and axles are filled to the required operating fluid levels
		PC5. Inspect for defects such as cracked welds, fuel leaks, hydraulic leaks, damaged control cables or wire harness
		PC6. Inspect whether work platform and extension slides are clean, dry & clear of debris
		PC7. Check the carrying basket for any physical damages and all the fastenings and linkages for any damages
		PC8. Verify whether lower operating controls successfully override the upper controls of boom lift equipment
		PC9. Ensure emergency lowering functions are working
Reporting & Documentation		PC10. Document the results in the checklist after inspection of the equipment
		PC11. Report any defect or abnormality in the equipment to the person responsible for the safe use of it
Organizational Context (Knowledge of the company/ Organization and its processes)		KA1. The organization operations, maintenance and safety related guidelines
		KA2. The operational standards & procedures followed in the company the timeframe in which the complaint/problem should be resolved
		KA3. Reporting structure in the company
		KA4. Location of specialized tools and the equipment
		KA5. Location and process for storage and disposal of waste material
Technical Knowledge		KB1. Overview of types of boom lift and scissors lift equipment and the general applications of that equipment
		KB2. Technical specifications, features and performance of different types of aerial work platform equipment
		KB3. Identification of components of a boom lift, scissors lift and its functioning - Guard rails

		- Platform - Upper controls - Tip boom - Main boom - Lower controls - Chassis
		KB4. Identification of components of a Scissor lift and its functioning - Base - Ladder - Lower lift cylinder - Base control panel - Upper lift cylinder - Main platform deck - Control box platform - Roll out extension deck
		KB5. Basics of engine and sub systems; fuel, lubrication and cooling systems
		KB6. Basics of transmission, auto-electrical functioning and repairs
		KB7. Different types of hydraulic mechanisms, principles of friction
		KB8. Basics of electrical systems including control panel
		KB9. Controls, levers and switches in order to operate the aerial work platform
		KB10. Procedure of topping up fuel, lube oil and coolant in the machine
		KB11. Optimal working parameters- engine oil levels, hydraulic oil levels
		KB12. Manufacturer's specifications for tools and supplies
Function	**2**	**Carry out aerial work platform equipment operations**
Purpose	**P2**	• Starting up the equipment • Equipment Operations • Shutdown Procedures • Reporting and documentation
Starting up the equipment		PC1. Check the ground for adequate strength to support the weight of both the machine and the load/workmen throughout the lift
		PC2. Set outriggers on pads or on a level, solid surface of boom lift equipment
		PC3. Ensure that the road side gradient is not more than 15° to avoid boom lift toppling
Equipment Operations		PC4. Lower the platform using controls to allow the workmen enter into the boom or scissor lift
		PC5. Extend the boom, lift slowly and move the boom lift or scissor lift to the work area
		PC6. Determine the operating range based on the load capacities for the equipment
		PC7. Use the capacity chart to determine safe boom extension range
Shut down Procedures		PC8. Place the booms and lift in stewed position, when finished with the machine

		PC9. Shift the transmission to neutral and allow the engine to slow to idle speed
		PC10. Park the machine on a level surface
		PC11. Turn off the ground/platform key switch of boom lift and remove the key to prevent unauthorized operation
Reporting & documentation		PC12. Communicate problems accurately to others, such as maintenance personnel
		PC13. Document and communicate concerns to appropriate personnel, such as supervisor, mechanic
Organizational Context (Knowledge of the company/ Organization and its processes)		KA1. The organization operations, maintenance and safety related guidelines
		KA2. The operational standards & procedures followed in the company the timeframe in which the complaint/problem should be resolved
		KA3. Reporting structure in the company
		KA4. Location of specialized tools and the equipment
		KA5. Location and process for storage and disposal of waste material
		KA6. Contact person/area in case of emergency
Technical Knowledge		KB1. Technical specifications, features and performance of different types boom and scissors lifts
		KB2. Load Chart reading and balancing of weight
		KB3. Factors that affect equipment stability, such as ground and supporting conditions
		KB4. Principles of motion, balance and stability such as centre of gravity, horizontal and vertical stability, effects of speed, centrifugal force and acceleration
		KB5. Controls, levers and switches in order to operate the aerial work platform
		KB6. Actual and potential hazards, such as overhead utilities and guide wires, other equipment, personnel and vehicular traffic
		KB7. Impact of wind speed, storms and other weather conditions on equipment
		KB8. Safety controls and equipment such as automatic limit switches, overload limit devices and fire extinguishers
		KB9. Safety measures to be followed at time of emergencies to avoid damage
		KB10. Roles of personnel on site, such as supervisor, signalman and others
Function	**3**	**Carry out maintenance and troubleshooting of the aerial work platform**
Purpose	**P3**	• Preventive maintenance • Repair and troubleshooting • Reporting and documentation
Preventive Maintenance		PC1. Assess the right service schedule by tracking machine operating hours

		PC2. Read and observe all plates and instructions concerning safety that are attached onto the vehicle
		PC3. Replenish lubricants and fluids as per the running of the machine or as per the schedule
		PC4. Dispose of waste lubricating oils, anti-freeze and hydraulic fluids according to local regulations or take them to a recycling center for disposal.
		PC5. Check battery levels and condition of the terminals and carry out minor adjustments if required
		PC6. After operation each day, the fuel tank should be filled to prevent water from condensing in the tank
		PC7. Ensure that no maintenance task on the engine is performed when running or still hot
Repair and troubleshooting		PC8. Turn off the main power from panel completely before carrying out maintenance work on the equipment
		PC9. Ensure that appropriate tools are used while troubleshooting
		PC10. Diagnose the problem and identify appropriate repair procedures
		PC11. Report defects precisely to the supervisor if beyond scope of his role
		PC12. Dispose waste as per the guidelines of the site/ organization
Reporting & Documentation		PC13. Follow reporting procedures as laid down by the employer
		PC14. Complete all documentation as per the prescribed standards in a timely manner
Organizational Context (Knowledge of the company/ Organization and its processes)		KA1. The organization operations, maintenance and safety related guidelines
		KA2. The operational standards & procedures followed in the company the timeframe in which the complaint/problem should be resolved
		KA3. Reporting structure in the company
		KA4. Location of specialized tools and the equipment
		KA5. Location and process for storage and disposal of waste material
		KA6. Contact person/area in case of emergency
Technical Knowledge		KB1. Maintenance schedule of the equipment
		KB2. Basics of engine and sub systems; fuel, lubrication and cooling systems
		KB3. Basics of transmission, auto-electrical functioning and repairs
		KB4. Different types of hydraulic mechanisms and principle of friction
		KB5. Basics of electrical systems including control panel
		KB6. Control and switches needed to operate the aerial work platform appropriately
		KB7. Common defects and general causes of breakdown
		KB8. Spill kit and battery boosting procedures
Function	**4**	**Comply with worksite health and safety guidelines**
Purpose	P4	• Work Health & Safety
Work Health & Safety		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
Organizational Context (Knowledge of the company/ Organization and its processes)		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
Technical Knowledge		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 and waste
		KB6. Types of common hazards and risks at the worksite including fire, electrical, gas emergencies, accidents, incidents, structure collapse, machine breakdown
		KB7. Knowledge of safe lockdown/ stop of machinery use in case of emergencies and incidents/ accidents
		KB8. Types of fire extinguishers and their use
		KB9. Common injuries and appropriate basic first aid treatment e.g. electrical shock, bleeding, wounds, fractures, minor burns, eye injuries
Optional NOS		
Function	**1**	**Operate and maintain telescopic handler equipment**
Purpose	P1	• Pre-operation checks • Operations of telescopic handler • Maintenance and troubleshooting of telescopic handler

Pre operation Checks		PC1. Check seat belt for damage, replace belt if frayed or cut webbing, damaged buckles or loose mounting hardware
		PC2. Check the gauges, switches, joysticks, horns and controls for proper condition
		PC3. Check for frame level indicator and window glass for damages
		PC4. Check all the lighting systems for proper working condition
Operations of telescopic handler		PC5. Determine the operating range based on the load capacities for the equipment
		PC6. Adjust spacing of forks to engage the pallet or load at max width
		PC7. Position the telescopic handler to place or retrieve the load without moving or repositioning the machine
		PC8. Align forks of telescopic handler at the level load is to be placed, then extend boom slowly until load is just above area where it is to be placed
		PC9. Lower the boom of telescopic handler until the load rests in position and the forks are free to retract
		PC10. Shift the transmission to “Neutral” and allow the engine to slow to idle speed
Maintenance and troubleshooting of telescopic handler		PC11. Assess the right service schedule by tracking machine operating hours
		PC12. Read and observe all plates and instructions concerning safety that are attached onto the vehicle
		PC13. Replenish lubricants and fluids as per the running of the machine or as per the schedule
		PC14. Follow reporting procedures as laid down by the employer
Organizational Context (Knowledge of the company/ Organization and its processes)		KA1. The organization operations, maintenance and safety related guidelines
		KA2. The operational standards & procedures followed in the company the timeframe in which the complaint/problem should be resolved
		KA3. Reporting structure of the company
		KA4. Location of specialized tools and the equipment
		KA5. Location and process for storage and disposal of waste material
		KA6. Contact person/area in case of emergency
Technical Knowledge		KB1. Overview of types of telescopic handler equipment and the general applications of it
		KB2. Technical specifications, features and performance of different types of telescopic handler
		KB3. Identification of components of a telescopic handler and its functioning - Chassis - Outriggers - Operators cab - Boom - Fork Carriage - Forks
		KB4. Basics of engine and sub systems; fuel, lubrication and cooling systems
		KB5. Basics of transmission, auto-electrical functioning and repairs

		KB6. Different types of hydraulic mechanisms, and principles of friction
		KB7. Basics of electrical systems including control panel
		KB8. Controls, levers and switches in order to operate the aerial work platform
		KB9. Procedure of topping up fuel, lube oil and coolant in the machine
		KB10. Optimal working parameters- engine oil pressure, hydraulic oil pressure and temperatures
		KB11. Maintenance schedule of the equipment
		KB12. Common defects and general causes of breakdown
		KB13. Spill kit and battery boosting procedures
		KB14. Manufacturer's specifications for tools and supplies