



Learning Outcomes for N207 Crusher

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as a plant operator	Explain the structure of the course and the need to comply with your instructions at all times • Explain that the industry is very dangerous and that only safe working practices will be adopted throughout the course • Personal safety is not just the absence of physical injury, can be affected by noise, vibration, dust and can lead to serious illness, death, lost time, lost income, expense for the employer, etc • Explain Health & Safety at Work Act 1974, PUWER Regs, LOLER Regs, Working at Height Regs, risk assessments, method statements, codes of practice and other relevant legislation • Remind learners that operators have moral obligations, legal obligations and environmental obligations • Explain reporting structures, the importance of good communication on site (colleagues, management, and other workers on site)
Have a working knowledge of the manufacturer's handbook for the particular machine to be used	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it has to be used in alliance with all relevant legislation, COSHH Assessments
Be able to locate and identify the major components of the machine and explain their functions	Explain the different types of components • Explain the function of the components and how they all contribute to the safety and operational integrity of the machine • Explain, power units, hydraulic systems, undercarriage, drive systems, chassis, wheels, tracks, belts, drums, skirts, jaws, hammers, feeder, Emergency stops, stability, ground pressure, safety systems etc
Be able to locate and identify how to use the remote control for steering and driving and explain all their functions	Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety and stability of the machine and help prolong machine life by reducing wear and tear. Refer to the manufacturer's handbook, codes of practice, decals
Conduct all pre-operational checks in accordance with manufacturer's and legislative requirements	Explain the importance of pre-operational checks and legal implications of using a Crusher without having checked it • Go through the sequence of checking, use manufacturer's handbook, check sheet, defect reporting procedure etc
Identify and maintain PPE appropriate for the crusher	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask, Fall prevention systems, suitable gloves, overalls, protective clothing etc
Safely mount and dismount the Crusher	Explain the following fully: Correct mounting procedure, observations, use of safe hand holds • Working at height awareness, slips trips and falls • Correct dismounting procedure • Observations • Use of safe hand holds



Learning Outcomes for N207 Crusher

Learning Outcome	Instructor Notes
Start and stop the Crusher engine, belts, feeder, jaws / hammers safely	Explain and demonstrate the following: Correct starting and stopping procedure in accordance with manufacturer's recommendations • Correct procedure and sequence for starting production
Configure the machine for travel and manoeuvre it safely across varying terrain in open and confined areas	Explain the following fully: Safe use of steering and driving controls, travel position • Position of Drive sprockets and the reasons of importance • Correct procedure for stowing away discharge belts / safety supports used • Good all round visibility • Travel around site, possible road travel
Conduct all necessary safety checks at the work area	Explain how to carry out pre-operation safety checks, including: Vehicles • Ground conditions and confined spaces • Overhead obstructions • Power lines • Buried services • Slopes, inclines, Other workers
Explain different types of crushers, their advantages and disadvantage of using, and how they produce the desired size material	Explain in detail the differences between: Jaw crusher • Rotary crusher • Cone crusher
Communicate with the loading operator establishing agreed signs, desired product size and production speed	Explain procedures to be adopted including: Different types of processed material sizes • Method statements • Job specifications • Risk assessments • Permits to crush • Reporting procedures • Minimum clearance • Placement or disposal of processed material • Segregation of materials • Weighing techniques and devices • Blockages • Environmental issues
Carry out Emergency Stop and Safety precautions	Explain procedures to be adopted including: Communication system – signals • Stalled crusher permits • Lock off tags • The Pitman motion for jaw crushers • Un- blocking procedures and operator safety
Carry out Crushing tasks	Explain procedures to be adopted including: Product sizes • Different materials • Fines • Crusher run • Type 1 • Job specification • Method statements, Risk assessments, etc
Demonstrate knowledge and understanding of loading and unloading procedures for machine transportation	Explain procedures to be adopted including: Different types of transport vehicle • Positioning of load on vehicle • Load security • Use of banksman • Environmental conditions
Environmental considerations	Explain and demonstrate procedures to be adopted including: Clear visibility • Communication system – signals etc • Noise • Vibration • Ground contamination • Ground damage • Fuel spills • Fumes • Flying debris • Dust
Carry out all end of shift and shut down procedures	Explain and demonstrate procedures to be adopted including: Safe parking • Shut down procedures and machine security

The learning outcomes listed should not be considered in isolation and may be added to in order to accurately reflect the learner's duties and working environment