

Learning Outcome	Instructor Notes
<p>Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as an operator</p>	<p>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 and can lead to lost time, lost income, expense for the employer etc • Explain Health & Safety at Work Act 1974, PUWER Regulations, MHSWR, COSHH, Noise at Work, Work at Height Regulations, CDM Regulations, Vibration at Work Regulations, risk assessments, method statements, 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)</p>
<p>Have a working knowledge of the manufacturer's handbook for the particular machine to be used</p>	<p>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</p>
<p>Be able to locate and identify the major components of the machine and explain their functions</p>	<p>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 • Ground suitability • Explain power units • Hydraulic systems • Hoisting gear / ropes • Safety locking devices and pins • Guards • Rams • Jibs / buckets • Boom • Drag chain / cable • Fairlead • Hoist cable • Dump cable • Suspension ropes • Undercarriage • Tracks • Slewing arrangements • ROPS / FOPS • Emergency stops and other safety systems etc</p>
<p>Be able to locate and identify key controls and explain their functions</p>	<p>Explain the different controls and their functions • Explain how correct and sympathetic use of the controls can ensure safety of the machine and help prolong machine life by reducing wear and tear • Refer to the manufacturer's handbook, codes of practice, decals etc</p>
<p>Conduct all pre-operational and running checks in accordance with manufacturer's and legislative requirements</p>	<p>Explain the importance of pre-operational and running checks and legal implications of using a machine without having checked it. Go through the sequence of checking. Maintenance procedures in line with manufacturer's handbook, check sheet, defect reporting procedure, relevant documentation including the inspection certificate / certificate of conformity</p>



Learning Outcomes for N116 Dragline

Learning Outcome	Instructor Notes
Identify and maintain PPE appropriate for dragline use	Explain that PPE should include the following: Impervious safety boots, ear defenders, face / eye protection, dust mask if appropriate, impervious gloves, hard hat overalls etc
Conduct all necessary safety checks at the work area and set for excavating duties	Explain and demonstrate the following fully: Walk the site and highlight or remove any hazards • Underground hazards • Overhead cables • Ground conditions • Confirm that the condition of the site is safe to work in • Machine positioning • Equipment / size of bucket / type • Spoil placing / segregation • Drag clevis position • Placement of loading vehicle • Report any hazards that cannot be removed • Set out warning signs and barriers • Exclusion zones • Working positions • Eliminate reversing tasks
Prepare the dragline for travel / use and operate machinery safely and efficiently	Explain and demonstrate all safety procedures to be adopted including: • Correct starting procedure • Mount and dismount the machine • Travel controls and position • Visibility • Identify and report any defects • Correct loading procedure • Correct procedure for adjusting / changing different attachments • Follow all safe working procedures • Set up exclusion zone around dragline • Waste Disposal arrangements • Check electrical safety • Overhead / underground services • Identify maximum outreach and stability • Radio protocol and signals
Travel over varying types of ground – uneven surfaces, inclines, rough ground	Explain and demonstrate procedures to be adopted including: • Identification of hazards • Ground conditions • Working area • Routes / direction of travel • Slopes / inclines • Traction / adhesion • Environmental considerations / minimise impact
Manoeuvre in restricted areas	Explain and demonstrate all safety procedures to be adopted including: • Negotiating tight / restricted areas • Obscured vision / blind spots • Noise / fumes • Height restrictions • Ground and vicinity protection



Learning Outcomes for N116 Dragline

Learning Outcome	Instructor Notes
Excavation of various types of ground and placement of material into hoppers and vehicles	Explain and demonstrate procedures to be adopted including: Machine positioning • Vehicle stability • Segregation / disposal of spoil • Productive stages of operation • Measuring levels / centres • Signals / communication • Loading hoppers • Overspill kept too minimum • Cleanliness of loading area
Various types of material and rope adjustment	Explain and demonstrate procedures to be adopted including: • Bucket types • Manual handling • Preparation and security • Clevis positions in relation to best practice and manufacturers recommendations
Environmental considerations	Explain and demonstrate procedures to be adopted including: Designated washout areas • Clear visibility • Communication system – signals etc. • Noise • Vibration • Ground contamination • Ground damage • Fuel spills • Fumes • Flying debris
Storage – Loading - unloading and transport of dragline and attachments	Explain and demonstrate the following: • Allow power driven implements to slow down • Check condition of hoses – attachments etc. • Correct / secure storage of attachments • Compatibility • Refer to manufacturer's handbook • Security
Carry out all end of work and shut down procedures	Explain and demonstrate procedures to be adopted including: • Shut down procedures and machine security • Clean machine thoroughly after use to avoid corrosion, facilitate maintenance, prevent personal contamination • Inspect machine for signs of wear and damage

****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***