

Learning Outcomes for N601 Agricultural Tractor

Learning Outcome	Instructor Notes
Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as an 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 and can lead to lost time, lost income, expense for the employer etc • Explain Health & Safety at Work Act 1974, Restraining systems in accordance with risk assessment, PUWER Regulations, LOLER Regulations, Vibration at Work Regulations, Road Traffic Act, Risk Assessment, method statement, 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
Be able to locate and identify the major components of the machine and explain their functions	Explain the different types of component • 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, transmissions, PTO, chassis, steering, braking, fuel tank, guards, ROPS, FOPS, stability, ground pressure, attachments and safety systems etc
Be able to locate and identify key controls and explain their functions	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
Conduct all pre-operational and running checks in accordance with manufacturer's and legislative requirements	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, use manufacturer's handbook, check sheet, defect reporting procedure etc
Identify and maintain PPE appropriate for agricultural tractor use	Explain that PPE should include the following: Suitable safety boots, ear defenders, face / eye protection, dust mask if appropriate, suitable gloves, overalls, hard hat etc
Conduct all necessary safety checks at the work area	 Explain and demonstrate the following fully: Walk the site and highlight or remove any hazards Confirm that the condition of the site is safe to work in Height restrictions, confined spaces, visibility Report any hazards that cannot be removed Direction of travel, routes, slopes, inclines, hill starts Set out warning signs and barriers, exclusion zones to warn members of the public and to exclude animals



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Prepare the agricultural tractor for 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 • Correct operating procedure on slopes / inclines • Identify and report any defects • Correct procedure for adjusting / changing different attachments Follow all safe working procedures • Adhere to road traffic act where applicable • Check electrical safety, overhead / underground services • Check fluid levels • Load and unload positions, spoil location / segregation • Working procedures and efficiency
Attach and set trailed, mounted and power take off drives ready for work	 Explain and demonstrate procedures to be adopted including: Connecting procedures • Securing process • Implement / tractor compatibility • Hitch controls, Lift arm controls • Implement stability and security • Levelling / securing procedures • Hitch types 3 point systems Draw bar systems • PTO controls, speeds, compatibility • Guarding • Starting / stopping procedures • Hazards associated with all implements Remove and secure implements
Environmental considerations	Explain and demonstrate procedures to be adopted including: • Clear visibility • Communication system – signals etc • Noise • Dust • Vibration • Ground contamination • Ground damage • Fuel spills • Fumes • Flying debris
Storage and transport of attachments	Explain and demonstrate the following: • Allow power driven implements to slow down • Check condition of hydraulic hoses, 3-point linkages – attachments etc • Correct / secure storage of attachments • Refer to manufacturer's handbook • attachment protection, stability and security
Demonstrate knowledge and understanding of loading and unloading procedures for machine transportation	Explain / demonstrate the following: • Correct / secure position • Banksman • All hydraulic pressure released • Cleanliness and security • Refer to manufacturer's handbook
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