



# Learning Outcomes for N721 Static Concrete Placing Boom

Learning Outcome	Instructor Notes
<b>Have a basic understanding of the industry, the dangers of working in the industry and their responsibilities as an operator</b>	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, LOLER, MHSAWR, CDM Regulations, Vibration at Work Regulations, Working at Height Regs, HSG150, GS6, risk assessments, method statements, ACOP 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)
<b>Have a working knowledge of the manufacturer's handbook for the particular Static Placing Concrete Boom to be used</b>	Explain the importance of the manufacturer's handbook and that it will be used throughout the course. Stress that it must be used in conjunction with all relevant legislation
<b>Be able to locate and identify the major components of the Static Concrete Placing Boom and explain their functions</b>	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, safety locking devices, support structures, Boom, boom assembling, parts of turntable, slewing mechanism, fixed revolving tower, pillar, delivery pipeline, hydraulic, system, electrical system and climbing system, guards, compressor, hoses, attachments and safety systems, delivery pipeline etc
<b>Be able to locate and identify key controls and explain their functions</b>	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
<b>Conduct all pre-operational and running checks in accordance with manufacturer's and legislative requirements</b>	Explain the importance of pre-operational and running checks and legal implications of using a Static Concrete Placing Boom without having checked it. Assess wind speeds and proximity to cranes and other high reach equipment, Go through the sequence of checking. Use manufacturer's handbook, check sheet, defect reporting procedure etc. Prime the line, safety checks of safety pins, couplings etc



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<b>Identify and maintain PPE appropriate for Static Concrete Placing Boom use</b>	Explain that PPE should include the following: Suitable safety helmet, safety footwear, impervious gloves / gauntlets, ear defenders, suitable face / eye protection, dust mask where appropriate, disposable coveralls and high visibility clothing <b>NOTE:</b> Concrete operatives often work in concrete, consequently all footwear should be impervious, clothes should be prevented from becoming contaminated with concrete and arrangements should be made to ensure that any contaminated clothing is dealt with appropriately
<b>Conduct all necessary safety checks at the work area</b>	Explain and demonstrate the following fully: <ul style="list-style-type: none"><li>• Walk the site and highlight or remove any hazards</li><li>• Underground hazards</li><li>• Overhead cables</li><li>• under foot condition</li><li>• Confirm that the condition of the site is safe to work in</li><li>• Report any hazards that cannot be removed</li><li>• Set out warning signs and barriers, exclusion zones to warn members of the public of the danger areas</li></ul>
<b>Prepare the Static Concrete Placing Boom for use and operate machinery safely and efficiently</b>	Explain and demonstrate all safety procedures to be adopted including: <ul style="list-style-type: none"><li>• Placing boom</li><li>• Correct starting procedure</li><li>• Correct operating procedure for different pouring distances</li><li>• Identify and report any defects</li><li>• Correct procedure for adjusting and changing different attachments</li><li>• Follow all safe working procedures</li><li>• Check all hose joints</li><li>• Check all safety clips – whip cords etc</li><li>• Check electrical safety, overhead and underground services</li><li>• Identify maximum outreach and stability</li><li>• Concrete density</li><li>• Safe use of the remote control</li><li>• Follow instructions and signals given by placing gang. Correct 'blockage' procedures</li></ul>
<b>Environmental considerations</b>	Explain and demonstrate procedures to be adopted including: <ul style="list-style-type: none"><li>• Clear visibility</li><li>• Communication system – signals etc</li><li>• Noise</li><li>• Vibration</li><li>• Ground contamination</li><li>• Ground damage</li><li>• Lubricant / material spills</li><li>• Fumes</li><li>• Flying debris</li><li>• Cleaning procedures</li><li>• Correct disposal of waste concrete</li></ul>
<b>Storage of Static Concrete Placing Boom attachments</b>	Explain and demonstrate the following: <ul style="list-style-type: none"><li>• Allow power driven implements to slow down</li><li>• Check condition of hoses, attachments etc</li><li>• Correct / secure storage of attachments</li><li>• Clean correctly</li></ul> Refer to manufacturer's handbook



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## Learning Outcome

**Carry out all end of work and shut down procedures**

## Instructor Notes

Explain and demonstrate procedures to be adopted including:

- Shut down procedures and boom security
- Clean boom thoroughly after use to avoid corrosion, facilitate maintenance, prevent personal contamination
- Inspect machine for signs of wear and damage
- Clean delivery lines using compressed air (when no alternative available due to long pipes, e.g. fast setting concrete or hot weather)

*\*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*