

# Demolition Plant

**A65**

Technical Test – Theory

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| Roles and responsibilities | 1. What is the definition of, or how can a hazard be described?  |
|                            | <b>A</b>   |
|                            | 2. What is the purpose of a risk assessment?   |
|                            | <b>A</b>   |
|                            | 3. List SIX typical subject areas that should be covered in a site induction.  |
|                            | <b>A</b>   |
|                            | 4. What THREE main duties of the Health and Safety at Work Act must employees follow?  |
|                            | <b>A</b>   |
|                            | 5. What does the Health and Safety at Work Act require employers to do with regards specifically to plant?   |
|                            | <b>A</b>   |
|                            | 6. a) What is the purpose of a Method Statement and b) what is required of the operator?   |
|                            | <b>A</b>   |
|                            | 7. Name FOUR different types or levels of sanctions that can be applied (by employers and judicial bodies) to plant operators who do not comply with, or follow legislation and regulations. |
|                            | <b>A</b>   |
|                            | 8. Plant operators are generally regarded as 'safety-critical' workers. What does this mean?   |
|                            | <b>A</b>   |

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| Roles and responsibilities continued | 9. Name THREE ways in which an operator can minimise their impact upon the environment whilst using the machine.   |
|                                      | <b>A</b>   |
|                                      | 10. In what situation does a hard hat NOT need to be worn when operating a demolition machine?   |
|                                      | <b>A</b>   |
|                                      | 11. The operator has to fit and use a new attachment using a quick-hitch coupler that they are unfamiliar with. What do Regulations (i.e. PUWER 98) and other guidance require the operator to have? |
|                                      | <b>A</b>   |
|                                      | 12. What are the possible outcomes if being prosecuted (by judicial bodies) for not complying with legislation and regulations?  |
|                                      | <b>A</b>   |
|                                      | 13. Give TWO examples of where The Work at Height Regulations may apply to demolition machine operations.  |
|                                      | <b>A</b>   |
| Preparing for work                   | 14. How can a qualification or card benefit a plant operator?  |
|                                      | <b>A</b>   |
|                                      | 15. Name THREE ways that a plant operator can contribute in ensuring repeat business with the client or main contractor.   |
|                                      | <b>A</b>   |
|                                      | 16. Where should the machine's Operator's Manual be kept and why?  |
| <b>A</b>                             |  |
| Preparing for work                   | 17. If the operator has to top-up the hydraulic oil, state TWO precautions to ensure cleanliness of the system.  |
|                                      | <b>A</b>   |

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| Preparing for work continued   | <b>For questions 18 and 19 the Operator’s Manual for the machine being used for the test MUST be available for reference by the candidate</b> |
|  | 18. Using the Operator’s Manual, state the figure for setting track tension.  |
|  | <b>A</b>  |
|  | 19. Using the Operator’s Manual, state the cold-starting procedure for the machine.   |
|  | <b>A</b>  |
|  | 20. State the purpose of the check valve(s) located on the boom cylinder rams.  |
|  | <b>A</b>  |
|  | 21. What is the purpose of a roll or ROPS frame?  |
|  | <b>A</b>  |
|  | 22. If checking the oil level using a dipstick, why must gloves be worn?  |
|  | <b>A</b>  |
|  | 23. Name FOUR hydraulically operated attachments that may be used on Demolition.  |
|  | <b>A</b>  |
|  | 24. Apart from the operator, who else may need to use the machine’s Operator’s Manual?  |
|  | <b>A</b>  |
| 25. What is the purpose of the counterweight of the machine?   |   |
| <b>A</b>   |   |
| 26. On many demolition machines, the slew is restricted. a) What is the normal position for working and b) why is the slew restricted?   |   |
| <b>A</b>   |   |
| 27. During work, the engine starts to overheat. Explain the danger if someone tries to remove the radiator or expansion tank cap.  |   |
| <b>A</b>   |   |
| 28. If both travel levers (or travel pedal for wheeled machines) are pushed forwards when the track motors (or driving wheels) are in front of the cab, in which direction would the machine move? |   |
| <b>A</b>   |   |

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| Preparing for work continued  | 29. If the machine is crossing the public highway, the Road Traffic Act applies. a) What type of licence and which classes should the operator hold and b) what is the minimum age allowed? |
|   | <b>A</b>  |
|   | 30. When MUST a banksman/signaller be used before moving the machine?   |
|   | <b>A</b>  |
|   | 31. Why must the seat belt be worn, even with the cab door closed?  |
| <b>A</b>  |   |
| Setting up for work   | 32. Give FOUR reasons that may cause the machine to tip over – forwards and/or sideways.  |
|   | <b>A</b>  |
|   | 33. There are five areas within a demolition site. Name THREE of those areas.   |
|   | <b>A</b>  |
|   | 34. Explain ALL visual checks that must be carried out on all types of quick-hitch attachment connecting systems before use.  |
|   | <b>A</b>  |
|   | 35. When using a high reach machine, describe FOUR considerations that must be taken into account when setting up for work.   |
|   | <b>A</b>  |
|   | 36. On high reach machines, what should be considered when positioning the machine for work?  |
| <b>A</b>  |   |
| 37. On a semi-automatic quick-hitch attaching system: a) what is the purpose of the safety pin and b) what checks MUST be made to the pin before use? |   |
| <b>A</b>  |   |
| 38. Cable avoidance tools (CATs) can detect a variety of buried services. What type of material do they have limitations in locating?                 |   |
| <b>A</b>  |   |

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| Setting up for work continued   | 39. Describe ONE physical method of checking that an attachment is fully secured to the quick-hitch coupler prior to work.   |
|   | <b>A</b>   |
|   | 40. When working in a confined area or space: a) what danger can be present with regards to the counterweight of the machine, b) what is the recommended minimum distance and c) what measures must be implemented if the gap is less? |
|   | <b>A</b>   |
|   | 41. If setting up to demolish in a confined area, name TWO things that should be taken into account before starting.   |
|   | <b>A</b>   |
|   | 42. What particular and specific hazards can affect the stability of the machine when working on old industrial (Brownfield) sites?  |
|   | <b>A</b>   |
|   | 43. If setting up to work close to a pedestrianised area, state THREE factors that need to be taken into account.  |
|   | <b>A</b>   |
|   | 44. The operator is asked to demolish a new structure. State FIVE different requirements that must be considered or implemented before work commences.   |
|   | <b>A</b>   |
|   | 45. Before manually changing any attachment: a) where should the attachment be positioned (in relation to the ground) before removing the final pin and b) why?  |
|   | <b>A</b>   |
| 46. Before starting work on a new structure, how should the operator familiarise themselves with the work zone?   |  |
| <b>A</b>  |  |
| 47. a) What is the recommended minimum distance to be kept away from overhead power lines mounted on wooden poles when setting up the machine and b) explain why a distance should be kept. |  |
| <b>A</b>  |  |

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| Working tasks  | 48. If a trench has a depth of 2.0 metres: a) what is the minimum distance to maintain from the edge of the trench when working and b) explain why. |
|  | <b>A</b>  |
|  | 49. Why should different materials be segregated during demolishing?  |
|  | <b>A</b>  |
|  | 50. a) Why should the slewing direction be to the left wherever possible and b) explain why.  |
|  | <b>A</b>  |
|  | 51. What are the requirements for creating a raised working platform?   |
|  | <b>A</b>  |
|  | 52. If loading a vehicle with material, in what circumstances can the truck/wagon driver remain in the cab?   |
|  | <b>A</b>  |
|  | 53. a) Give ONE advantage and b) TWO disadvantages of using cameras to monitor the work.  |
|  | <b>A</b>  |
|  | 54. If the structure being demolished has a basement, name two precautions to be taken to ensure the integrity of the floor slab.                   |
|  | <b>A</b>  |
|  | 55. Explain the difference between pre-tensioned and post-tensioned members.  |
|  | <b>A</b>  |
|  | 56. Name FOUR load bearing structural elements.   |
|  | <b>A</b>  |
| 57. The operator must be aware at all times of the operation of the attachment, and of the progress of the demolition. Give THREE examples on how they would achieve this. |   |
| <b>A</b>   |   |
| 58. Why should the jaws of a shear be kept downwards if working at height?   |   |
| <b>A</b>   |   |

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| Working tasks continued | 59. Why should linkage pins be checked on a regular basis?   |
|                         | <b>A</b>   |
|                         | 60. Explain a possible danger if the machine is demolishing on sloping ground.   |
|                         | <b>A</b>   |
| Completing work         | 61. What actions should be taken to a partially demolished structure at the end of a working day?  |
|                         | <b>A</b>   |
|                         | 62. Before leaving the cab for a rest break, after parking and switching off the machine, what final action must be carried out?   |
|                         | <b>A</b>   |
| Shutdown                | 63. When parking the machine at the end of the shift, name THREE places where the machine should NOT be parked.  |
|                         | <b>A</b>   |
|                         | 64. Many demolition machines have a turbo-charged engine. a) What is the normal procedure before switching off the engine after working and b) what happens if the procedure is not followed?                          |
|                         | <b>A</b>   |
|                         | 65. The operator has been asked to drive the machine onto a transporter/trailer. a) Who is responsible for the loading operations and b) state FOUR actions to be considered by the operator before loading commences. |
|                         | <b>A</b>   |
|                         | 66. If the operator has loaded the machine onto a transporter/trailer on behalf of a driver, what checks must be carried out before they leave the cab?  |
| <b>A</b>                |  |
|                         | 67. Why should a machine be re-fuelled at the end of the day?  |
|                         | <b>A</b>   |