# VERIFICATION OF COMPETENCY FOR AN EXCAVATOR

**Examples and answers are in red text below. Just delete and uncheck the answer boxes before using.**

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| Company: | | | | Big Cat Earthmoving | | | | | Date: | | 20/02/2025 | | |
| Assessor’s Name: | | | | Phillip Teacher | | | | | Nominee’s Name: | | John Learner | | |
| Item of Plant: | | | | Cat Excavator | | | | | Model: | | 320D | | |
| The purpose of this verification of competency is to allow the nominee to demonstrate their understanding and competence to safely operate the excavator identified above.  This verification of competency is made up of two parts. One theoretical assessment and one practical assessment. | | | | | | | | | |  | | | |
| Section One – Theoretical Assessment  Section one consists of a questionnaire.  The nominee needs to have knowledge and awareness of the functions of the excavator and other common information associated with the safe operation of an excavator.  To successfully complete the theoretical section, the nominee will require a 100% pass mark. After the 100% pass mark has been achieved, the nominee can then move on to section two, the practical assessment.  Section Two – Practical Assessment  Section two consists of an observation and the verification of the operator’s competency.  The nominee needs to be able to demonstrate competence with the operation of the excavator.  The assessor must be satisfied that the nominee can safely operate the excavator in a range of tasks that would be generally undertaken. | | | | | | | | | | | | | |
| SECTION ONE – THEORETICAL ASSESSMENT | | | | | | | | | | | | | |
| Section one consists of 20 questions.  A pass mark of 100% is required to successfully complete the theoretical assessment.  Read the questions carefully and print your answers clearly and legibly.  For multiple choice questions, check the box that has the (most) correct answer. | | | | | | | | | | | | | |
| Question 1. | | | | | | | | | | | | | |
| What are three defects to look for when inspecting the hydraulic system? | | | | | | | | | | | | | |
|  | Hydraulic oil leaks, cracks in the hose lines and hydraulic pump squeals or noises. | | | | | | | | | | | | |
|  | Water leaks, build-up of pressure and blocks in the hoses. | | | | | | | | | | | | |
|  | Loose fan belt, blown gasket and hissing noises. | | | | | | | | | | | | |
|  | Excessive temperature, high fuel consumption and slow bucket movement. | | | | | | | | | | | | |
| Question 2. | | | | | | | | | | | | | |
| What is a risk of slewing a load when the excavator is on a steep level? | | | | | | | | | | | | | |
|  | You lose power. | | | | | | | | | | | | |
|  | Hydraulics are slower. | | | | | | | | | | | | |
|  | The excavator is more likely to roll over. | | | | | | | | | | | | |
|  | It is OK, excavators are designed for it. Operate as normal. | | | | | | | | | | | | |
| Question 3. | | | | | | | | | | | | | |
| How would you determine if the load can be safely lifted by the excavator? | | | | | | | | | | | | | |
|  | Verify it with someone else. | | | | | | | | | | | | |
|  | If it looks safe, it should be OK to lift. | | | | | | | | | | | | |
|  | If the excavator can lift it, the load is safe to lift. | | | | | | | | | | | | |
|  | Refer to the operator’s manual and verify the working load limit (WLL) of the excavator | | | | | | | | | | | | |
| Question 4. | | | | | | | | | | | | | |
| What action should you take with tracks that are loose? | | | | | | | | | | | | | |
|  | Leave them, they are supposed to be loose. | | | | | | | | | | | | |
|  | Book the excavator in for maintenance when the job is finished. | | | | | | | | | | | | |
|  | Get the toolbox out and adjust them. | | | | | | | | | | | | |
|  | Advise your supervisor and have the tracks adjusted by someone who is competent. | | | | | | | | | | | | |
| Question 5. | | | | | | | | | | | | | |
| How would you find out the correct track sag or track tension for a specific excavator? | | | | | | | | | | | | | |
|  | I would refer to the operator’s manual. | | | | | | | | | | | | |
|  | Take a good guess. | | | | | | | | | | | | |
|  | Compare it with another excavator. | | | | | | | | | | | | |
|  | Ask an experienced operator. | | | | | | | | | | | | |
| Question 6. | | | | | | | | | | | | | |
| How would you know when the excavator you are operating should be serviced? | | | | | | | | | | | | | |
|  | The exhaust smoke is darker in colour. | | | | | | | | | | | | |
|  | The engine oil goes white in colour. | | | | | | | | | | | | |
|  | I would check the hour meter and the service schedule of the excavator. | | | | | | | | | | | | |
|  | I would check with office administration. | | | | | | | | | | | | |
| Question 7. | | | | | | | | | | | | | |
| What must be provided on an excavator before it can be used as a crane? | | | | | | | | | | | | | |
|  | A service. | | | | | | | | | | | | |
|  | A hose burst check valve. | | | | | | | | | | | | |
|  | A check of the slew radius. | | | | | | | | | | | | |
|  | A check on the lifting arms | | | | | | | | | | | | |
| Question 8. | | | | | | | | | | | | | |
| When operators fail to properly maintain their excavator what may be the result? | | | | | | | | | | | | | |
|  | It is 100% up to the owner to maintain the excavator. | | | | | | | | | | | | |
|  | If the oil and water is maintained that is enough to ensure safe operation. | | | | | | | | | | | | |
|  | Excessive wear and damage will occur to the excavator. | | | | | | | | | | | | |
|  | It’s up to the mechanic. | | | | | | | | | | | | |
| Question 9. | | | | | | | | | | | | | |
| What should you do in the event of an incident while operating the excavator? | | | | | | | | | | | | | |
|  | Report it in your logbook. | | | | | | | | | | | | |
|  | Immediately report it to your supervisor or the person in control of the worksite. | | | | | | | | | | | | |
|  | Tell your workmates and listen to what they have to say. | | | | | | | | | | | | |
|  | If there is no damage, continue working. | | | | | | | | | | | | |
| Question 10. | | | | | | | | | | | | | |
| If you are operating an excavator on a construction site, you need a safe work method statement for: | | | | | | | | | | | | | |
|  | Construction site work. | | | | | | | | | | | | |
|  | Operating in a restricted space. | | | | | | | | | | | | |
|  | Working near other persons. | | | | | | | | | | | | |
|  | The movement of powered mobile plant (e.g. excavator operation) | | | | | | | | | | | | |
| Question 11. | | | | | | | | | | | | | |
| What defects would you look for when carrying out an inspection on the bucket? | | | | | | | | | | | | | |
| Example answers are – cracks, loose pins and hinges, worn wear plates, bent, worn teeth and edges, stress fractures, impacts, fatigue, worn fittings, etc. | | | | | | | | | | | | | |
| Question 12. | | | | | | | | | | | | | |
| Name at least four hazards that must be checked on the work site before operating the excavator. | | | | | | | | | | | | | |
| Example answers are – Impacts with personnel. | | | | | | | | | | | | | |
| Trench or excavation collapse. | | | | | | | | | | | | | |
| Operating on steep inclines or declines. | | | | | | | | | | | | | |
| Contact with powerlines. | | | | | | | | | | | | | |
| Question 13. | | | | | | | | | | | | | |
| Is it not permissible for loads to be slewed over a person? | | | | | | | | | | | | | |
| True | |  | False | | |  | |  | | | | | |
| Question 14. | | | | | | | | | | | | | |
| You have cut an excavation deeper than 1.5 metres. Workers have to enter this excavation and there is a possibility that the walls of the excavation may collapse. Using the excavator, what could you do to make the excavation safe to enter? | | | | | | | | | | | | | |
| Example answer - I would bench or batter the walls, as this a common method used to stabilise excavations or trench walls and prevent collapse. | | | | | | | | | | | | | |
| Question 15. | | | | | | | | | | | | | |
| What can you do to prevent a person falling into a trench? | | | | | | | | | | | | | |
| Example answer - I would erect barricading and signage around the trench. | | | | | | | | | | | | | |
| Question 16. | | | | | | | | | | | | | |
| Before stockpiling any excavated material adjacent to an excavation or trench, what should you check for? | | | | | | | | | | | | | |
| Example answer - I would check the stability of the area adjacent to an excavation or trench, it must be able to withstand the increase in surcharge load and the load of any mobile plant or heavy vehicles. | | | | | | | | | | | | | |
| Question 17. | | | | | | | | | | | | | |
| Should the placement of material be on the higher side or the lower side of an excavation or trench? | | | | | | | | | | | | | |
| The lower side. | | | | | | | | | | | | | |
| Question 18. | | | | | | | | | | | | | |
| There is a risk of contact between your excavator and overhead electrical services, what would you do to manage this risk? | | | | | | | | | | | | | |
| Example answer - I would report this risk to management.  I would check the voltage of the electrical services, and I would verify the legal exclusion zones that must be complied with for that voltage.  I would engage a spotter to assist. | | | | | | | | | | | | | |
| Question 19. | | | | | | | | | | | | | |
| How would you identify and locate underground services? | | | | | | | | | | | | | |
| Example answers - I would check all available information and any service maps on the location of underground services (e.g. gas, water, sewerage, telecommunications, electricity, chemicals, fuel or refrigerant in pipes or tanks).,  I would contact the Dial Before You Dig (DBYD).  I would contact the utility service provider.  I would refer to As Builts, and/or by using another safe method. | | | | | | | | | | | | | |
| Question 20. | | | | | | | | | | | | | |
| All underground services must be treated as energized until proven beyond doubt that they have been successfully de-energized. | | | | | | | | | | | | | |
| True | |  | False | |  | |  | | | | | | |
| SECTION TWO – PRACTICAL ASSESSMENT (Assessor to Complete) | | | | | | | | | | Competent? | | | |
|  | The nominee knows and understands all the relevant worksite and excavator operational rules? | | | | | | | | | Yes | | No | N/A |
|  | The nominee can conduct a thorough pre-start check on the excavator? | | | | | | | | | Yes | | No | N/A |
|  | The nominee knows the importance of safe work method statements and safe work procedures? | | | | | | | | | Yes | | No | N/A |
|  | The nominee is aware when to complete any relevant permits (e.g. an excavation permit)? | | | | | | | | | Yes | | No | N/A |
|  | The nominee has knowledge of how to erect signage and barricading around the operating area, if required? | | | | | | | | | Yes | | No | N/A |
|  | The nominee understands what the levers, switches, buttons and functions control? | | | | | | | | | Yes | | No | N/A |
|  | The nominee is able to operate the excavator in a smooth continuous flowing motion? | | | | | | | | | Yes | | No | N/A |
|  | The nominee can competently load and place material in a controlled manner? | | | | | | | | | Yes | | No | N/A |
|  | The nominee lowers the bucket to the ground, before parking up and exiting the excavator? | | | | | | | | | Yes | | No | N/A |
|  | The nominee is aware how to secure the excavator in a safe location at the end of the working day? | | | | | | | | | Yes | | No | N/A |

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| Assessor’s Observations | | | | | |
| I .................................................... from ................................................ believe the nominee named above **HAS DEMONSTRATED** their competency in the safe operation of an excavator.  **Signed…**…………………………………. | | | | | |
| I .................................................... from ................................................ believe the nominee named above has **NOT DEMONSTRATED** their competency in the safe operation of an excavator and further training is required.  **Signed…**…………………………………. | | | | | |
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| Nominee Acknowledgement and Sign Off | | | | | |
| I .................................................... employed by ................................................confirm that I have read and understand the operator’s manual and have received adequate training and instructions to undertake the assigned tasks safely and competently.  I agree to abide by the requirements of the operator’s manual and if the work conditions change, or additional hazards are identified, I will discuss these changes with a supervisor or management.  **Signed…**…………………………………. | | | | | |
|  | | | | | |
| Assessment Checked By: |  | Signature: |  | Date: |  |

References

Excavation Work Code of Practice

Electrical Safety Code of Practice - Working Near Overhead and Underground Electric Lines

Australian Standard 4744.1 - Steel Shoring and Trench Lining - Design

Australian Standard 5047 - Hydraulic Shoring and Trench Lining Equipment