



PRACTICAL EXAMINATION INSTRUCTIONS

Cranes and Digger Derricks

These instructions must be read, exactly as written, to the candidate before each task.

Welcome to EICA's practical exam for Cranes and Digger Derricks. This exam consists of tasks designed to measure the skills and abilities of operators in the Electrical Industry.

All tasks must be performed in a safe and controlled manner. Notify the Examiner when you have completed each task for those that pertain.

Task 1 contains "domain critical" elements that require **100%** passing by the candidate in order to continue with the exam. Failing these "domain critical" items will require stopping the test. If you want to test again, you must reschedule and pay the fee again. *If you choose not to test at this time, you may do so without penalty of losing your fee.*

I will read specific instructions before each task and require confirmation that you understand those directions before continuing.

At no time is the candidate permitted to touch the load/hook/winch line during tasks 2-7.

Task 1 – Site Survey/Setup and Pre-operation Inspection

- This task is not timed.
- In preparation for the test, set up the machine addressing all site, setup and inspection elements for **prohibited** zone operations.
- For each item that is read to you, **describe** the "what and how" of a site hazard analysis, setup procedures and the pre-operation inspection process.
- Indicate when you have completed this task.
- Do you understand these instructions?

Setup the Machine to Manufacturer Specifications

Pre-operation Practice

- You have 15 minutes to become familiar with the equipment with or without a load.
- You may operate all the machine functions.
- You cannot practice the course or shadow any of the testing elements.
- Indicate if you are ready in less than 15 minutes and initial the score sheet attesting that you were provided 15 minutes of practice.
- Do you understand these instructions?

Task 2 – Hand Signals

- This task is not timed.

- I will give you some OSHA standard hand signals that you must follow as I guide you to the starting position for the next task.
- Do you understand these instructions?

Examiner Note: Signal the candidate to set a 60° boom angle, extend the boom tip if needed and lower the chain end within 6 inches over the top of the traffic cone or barrel.

Task 3 – Chain in Barrel

***(Optimal Time 1:45) (Time Limit 4:00)**

- This task is timed.
- **Telescoping the boom is prohibited during this task**
- **(Stationary Control Only) You are permitted to switch control side during this task, however the Task time will not be extended.**
- After a start signal, maneuver the boom to place the chain in Barrel #3
- The chain lifting hook, block or overhaul ball may **NOT** contact the machine, ground, top or outside of the barrel.
- You may touch the inside of barrel #3 with the chain.
- Timing stops when the chain is lowered into the barrel under control and I give a stop signal.
- Do you understand these instructions?

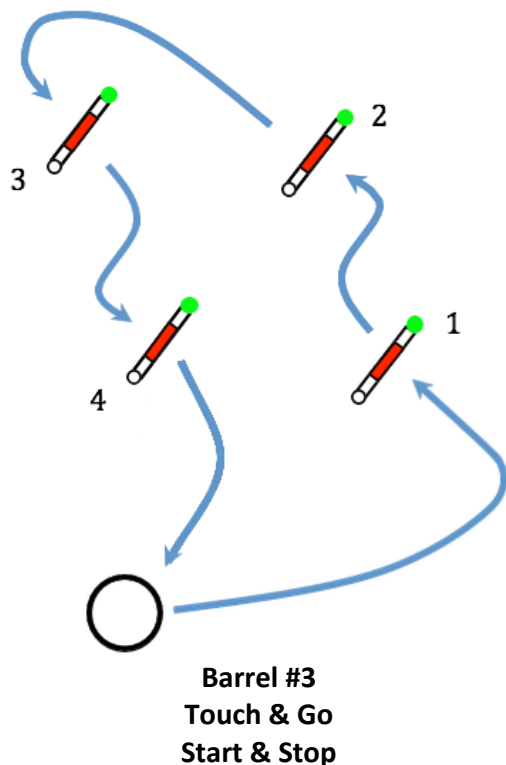
Examiner Note: Signal the candidate to move the load hook toward the test weight to connect the rigging. Then move the test weight back to barrel #3 and stabilize the test weight and steady the chain and rubber gut inside the barrel before beginning Task 4.

Task 4 – Touch and Go ***(Optimal Time 5:50) (Time Limit 10:30)**

- This task is timed.
- **You may use all machine functions during this task.**
- After a start signal, maneuver the test weight to contact only the red portion of the test stands with only the rubber insulating gut on the chain.
- Contact the red area with the rubber insulating gut on the front side of the test stands 1 and 2 moving away from the machine and the red area on the backside of test stands 3 and 4 as you move the test weight towards the machine.
- After properly contacting the red area on a test stand, I will give a hand signal and "go" command at which time

- you must move to the next test stand. Touching the top does not warrant a go command.
- After properly contacting stand #4, move the test weight back to Barrel #3.
- Timing stops when the insulating gut is placed within barrel #3 under control and I have given a stop signal.
- Do not contact the ground, test stands outside the red area, knock the tennis balls off, or touch the outside of barrel #3.
- Touching outside the red area or knocking the ball off does not count after the “go” signal is given.
- When the task is complete, I will direct you to return the test weight to the storage position.
- Review the Touch & Go pathway guide provided on the back page.
- Do you understand these instructions?

TASK 4 – Touch & Go Pathway Guide



Examiner Note: Direct the candidate to swing the boom over the rear of the unit for the Auger Control task.

Task 5 – Auger Control – Digger Derrick Only

***(Optimal Time 2:50) (Time Limit 5:10)**

- Follow all safety precautions for auger operation.
- After a start signal, properly position the boom and unwrap the auger. I will unhook the auger sling.
- Place the auger approximately 12” above the ground in preparation to dig a hole. Do not touch the ground and keep the functions for proper auger operation in mind.
- I will remove/attach the auger sling, so you can wrap and store the auger in the cradle.

- Do you understand these instructions?

Have the candidate switch to the other control station for Task 6 on a stationary control Crane or Digger Derrick.

Task 6 – Pole Control

***(Optimal Time 4:10) (Time Limit 6:45)**

- This task is timed.
- **You may use all machine functions during this task.**
- After a start signal, raise and maneuver the pole upright in front of the boom tip while keeping the pole butt within the circle.
- **Do NOT side load the boom tip. If you side load the boom tip more than 3 feet from vertical, I will give you a warning for which you must make proper adjustments. If you do not adjust the boom properly, I will stop the test and your actions will be recorded as an unsafe act.**
- When the pole is in a vertical position, raise the pole **just enough** to clear the ground. **Do not hoist or boom up more than necessary to just clear the ground.**
- Timing stops when the pole butt is freely hanging, inside the circle, and I give a stop signal.
- (Crane only) I will guide you to lay the pole down to the starting position.
- Do you understand these instructions?

Examiner Note: For Digger Derrick operations continue to Task 7. For Crane operations, skip Task 7 and go to Task 8. Assist in guiding the pole into the pole clamps and signal the operator to position the pole in the center of the circle no more than 6” off the ground.

Task 7 – Pole Set – Digger Derrick Only

***(Optimal Time 1:40) (Time limit 4:30)**

- This task is timed.
- **You may use all machine functions during this task.**
- After a start signal, raise and maneuver the pole to place the pole butt into the barrel.
- Timing stops when the pole butt is 12 inches inside the barrel and I give a stop signal.
- Do not move or touch the top or outside of the barrel with the pole.
- I will then direct you to lay the pole back down in the starting position.
- Do you understand these instructions?

Task 8 – Shutdown and Secure

- This task is not timed.
- Prepare the machine for shutdown, secure it and return the unit to road ready condition.

*** Time limit does not indicate passing times but indicates when the Practical Examiner is to stop the exam and fail the candidate. Optimal time is when most candidates completes the task.**