

## TRACKHOE

*This Evaluation Guide for Skills Demonstration is to be used in the evaluation of an operator for certification on the specific equipment stated above. It is intended that this Guide be followed closely during an evaluation, and the operator is expected to demonstrate competency in each of the items listed. However, variances may be made in some situations when, in the opinion of an evaluator, site conditions, operational constraints or the demonstrated skill of the operator requires that an item(s) be deleted or added to ensure a comprehensive evaluation.*

### **1. Performs a thorough pre-op inspection and preventive maintenance, as needed**

- Visually inspects exterior of machine for loose, leaking, hanging, or broken parts
- Enters cab using steps and grab handles for safety (3 point climbing procedure)
- Removes keys from ignition for safety
- Ensures that parking brake is applied
- Ensures that transmission is in neutral or lowest forward gear or reverse, as per policy
- Ensures that battery disconnect is turned off
- Performs general safety checks including unsecured objects
- Inspects the following machine components:
  - Carriage
    - \* Lights working, lenses clean and not broken
    - \* Batteries, terminals secure, not severely corroded
    - \* Turntable is free of debris, properly greased
    - \* Rollers are free of debris, able to turn freely, no flat spots (indicating frozen bearing)
    - \* Tracks are properly tensioned, not damaged and free of large debris
    - \* Drive sprockets not worn, free of debris
    - \* Tie down hooks (for transport) are secure, not broken
    - \* Fuel/water separator is emptied, free of foreign material

- \* Hose connections secure, not leaking; hoses not frayed, pinched or crimped
- \* Motor linkage not damaged or bound
- \* Fan blades, radiator fins, hydraulic cooler clear of debris, not bent or broken
- \* Turbocharger, oil line secure, not leaking
- \* Exhaust pipe secure, not damaged or leaking
- \* Lubrication chart present; lubrication points and frequencies are correctly interpreted
- \* Locates boom grease fittings and turntable grease fittings, gear travel oil dipstick
- \* Reviews/explains warning and safety decals
  
- Boom
  - \* No cracks, distortions or broken welds
  - \* Cylinders are clean, not pitted
  - \* Hoses on boom are not leaking, frayed, pinched or crimped
  - \* Box lines are not loose or leaking
  - \* Teeth on bucket are not broken or excessively worn
  - \* Side teeth are secure, not loose
  - \* Grease fittings and pins are present and properly greased
  
- Checks Fluid Levels/Filters
  - \* Radiator
  - \* Crank case
  - \* Battery
  - \* Fuel tank
  - \* Transmission
  - \* Hydraulic fluid (with all cylinders collapsed as much as possible)
  - \* Fuel/oil/hydraulic/air filters clean, not leaking
  - \* Differentials
  - \* Planetary axles
  
- Cab Interior
  - \* Performs general safety check including unsecured objects
  - \* Describes functions of controls
  - \* Inspects presence and condition of seat belts and other safety equipment, including horn, charged and secured fire extinguisher, first aid kit and emergency triangles, ROPS and FOPS
  - \* Inspects for clean and undamaged glass and mirrors, working wipers/ washers and heater/defroster

## **2. Makes sure that the work site is suitable for equipment operation**

- Makes sure all excavation approvals have been obtained, including contacting underground utilities
- Locates overhead wires, underground utilities - Recognizes indicators of underground lines and pipes
- Notes location of trees and other obstacles which may limit swing movements
- Identifies soft or unstable ground and makes appropriate accommodations
- Identifies dangerous site conditions such as frozen berms, frozen overhangs on stockpiles, unstable or oversteep slopes, etc.
- Keeps track of personnel on site

## **3. Properly starts equipment and prepares for operation**

- Verifies that neutral safety switch is working properly
- Verifies all gauges/warning/indicator lights are working properly, including swing signals
- Waits for hydraulic system to warm up before operating equipment (does not operate if cold hydraulic light is lit)
- Checks throttle and auto-accelerator for proper function
- Reviews function of controls (joystick, levers, foot pedals) and verifies they are working properly
- Reviews/explains function of hydraulic adjust, including need for direct fingertip contact on controls
- Tests to make sure there is sufficient clearance around machine to swing boom
- Tests swing action for effective starting and stopping
- Runs equipment slowly through all ranges of motion to verify proper function, nothing caught or bound
- Checks that moving alarm functions properly

## **4. Positions trackhoe in a location to maximize efficiency of movements and as close to level as possible**

- Positions trackhoe as close as possible to being in line with the work to be performed and as free of interference with obstacles as possible
- Machine is positioned as close to level as possible
- Machine movements are efficient and machine does not have to be repositioned excessively
- Machine remains stable throughout boom swings and movements

**5. Coordinates the boom and bucket to perform a variety of tasks or movements**

- Manipulates the boom and bucket in a smooth and continuous motion
- Checks all functions for proper operation
- Excavates a marked trench, *and/or*
- Places stone fill, *and/or*
- Clears debris from a stream channel, *and/or*
- Performs other tasks to adequately demonstrate skill of operation

**6. Parks, secures and cleans loader**

- Parks vehicle in appropriate area
- Lowers bucket to ground
- Sets parking brake
- During periods when the ground may freeze, parks track loader on planks or tires on dry ground
- Uses proper engine shutdown procedure (Idles machine for 3-5 minutes)
- Exits machine using 3-point climbing procedure
- Cleans and secures vehicle as appropriate
- Lubricates all bucket linkages daily
- Completes Post Operational check

The below signatures indicate the operator has successfully completed the skills demonstration.

Signature of  
Evaluator: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of  
Operator: \_\_\_\_\_ Date: \_\_\_\_\_

Reference: New State Department of Transportation