

## Brush Chipper

*This Evaluation Guide for Skills Demonstration is to be used in the evaluation of an operator for certification on the specific piece of 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

- Removes keys from ignition for safety  
Checks that warning and safety decals are in place
  - States all safety warnings for machine
  
  - Engine:
    - \* Checks for anti-freeze and oil leaks
    - \* Checks hydraulic hoses for leaks and cracks and that fittings are tight
    - \* Checks fuel and oil levels
    - \* Checks that the air filter is free of dirt, dust and chips and is properly secured
    - \* Checks that the battery and cables are corrosion free and are properly secured
    - \* Inspects condition and tightness of belts
    - \* Checks that screen in front of the radiator is free from debris
  
  - Frame:
    - \* Checks tires for tread depth, proper inflation and obvious defects
    - \* Checks wheels/rims for tightness, cracks, valve stem alignment, slippage or any damaged, broken or missing parts
    - \* Looks for signs of looseness or egg-shaping in holes of the lug nuts
    - \* Checks that brake lights and turn signals are functioning properly
    - \* Checks pintle hook and truck pintle hitch for wear and proper operation
    - \* Checks that safety chains are present and in good condition
    - \* Checks electrical connections
    - \* Checks frame for cracked welds and that the frame is not bent
    - \* Checks that jack stand works properly and is not damaged
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- S Checks chipping knives for cracks, chips and sharpness
- S Checks the cutting bar for chips or cracks
- S Checks tension on feed roll springs; not broken or loose
- S Greases feed wheels, clutch, wheel bearings, slide bar
- S Checks that chute is tight (chute rotating lock)
- S Uses proper eye, ear and hand protection, no loose clothing
- S Checks conditions of safety bar, that it moves freely, the connections are secure, not bent or damaged
- S Verifies equipment is safe to operate
- S Distinguishes when equipment should not be operated

## 2. Uses proper start up procedure

If using a disc type chipper: (e.g.: Bandit)

- Makes sure safety bar is in neutral position, if equipped
- Starts equipment:
  - a) Depresses Murphy oil override switch
  - b) Holds until oil pressure reads 10 PSI
- Adjusts throttle idle speed, approximately 600 RPMs
- Makes sure no one is in the throw zone or behind chipper
- Engages master clutch
- Observes chute to see if material is being thrown out
- Checks safety bar
  - a) Stops the feed rolls
  - b) Puts the machine in neutral
  - c) Reverses the feed rolls
- S Puts throttle up to operating speed, approximately 2500 RPMs

If using a drum type chipper: (e.g.: Lindig)

- S Depresses Murphy oil override switch
- S Makes sure no one is in the throw zone or behind chipper
- S Engages master clutch
- S Observes chute to see if material is being thrown out
- S Puts throttle up to operating speed

## 3. Loads brush into the chipper properly and safely

- S Makes sure that the feed rolls are turning in (disc type machine)
  - S Feeds the limbs only from the right side of the machine
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- S Does not load the machine with oversize material
- S Feeds the limbs butt end first
- S Monitors the chute, ensures that the material is coming out and into the truck
- S Cleans the chute when necessary
- S Adjusts the chute as necessary so that the truck is loaded evenly

**4. Shuts down machine using proper procedure**

- S Turns throttle in, does not push
- S Disengages clutch when machine reaches idle speed
- S Moves safety bar to reverse to clean out material (disc type machine)
- S Places safety bar in neutral (disc type machine)
- S Makes sure chute is clean
- S Shuts off machine and removes keys
- S Never uses the rotor brake system for normal shutdown. The rotor brake system is for emergency shutdown ONLY. (drum type machine)

**5. Cleans machine and completes Post Operational**

- S Cleans feed wheels using trap door
- S Cleans screen in front of radiator
- S Cleans off machine as necessary
- S Secures ignition box

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

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

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

Reference: New York State Department of Transportation

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