



# ANSI Z133-2012

Joe Engberg

Manager, Safety Program Support

The Davey Tree Expert Co.

ANSI® Z133-2012

# American National Standard

for Arboricultural Operations—  
**Safety Requirements**

ANSI® Z133-2012



**Ethel M. Hugg**  
**1968**

# **Consensus**

**1972, 1978, 1982, 1987,  
1994, 2000, 2006, 2012**

# **Sections**

- 1. General**
- 2. Normative References**
- 3. General Safety Requirements**
- 4. Electrical Hazards**
- 5. Safe Use of Vehicles and Mobile Equipment**
- 6. Portable Power Hand Tools**
- 7. Hand Tools and Ladders**
- 8. Work Procedures**
- Nine Informative Annexes**

# **Scope & Purpose**

**“...safety criteria for arborists and other workers engaged in arboricultural activities.”**

**3.1.4: A job briefing** shall be performed by the qualified arborist in charge before the start of each job.

## **3.2: Traffic Control – more detail including pedestrian safety.**





**3.4.3: Training** shall be provided on the use, care, maintenance, fit, and life of personal protective equipment.

**3.4.8:** The employer shall provide employees **protection against the effects of noise...exceed and 8-hour time-weighted average of 85dB.**

## **4.1.4: Electrical Hazards**

**Mitigation** more detail  
including reference to  
DIG – Annex H.

**5.1.11: Reversing**– more detail including ground guides, driver get out and look.

**5.2: Aerial Devices**— lots  
more detail on set-up  
and operation.

**5.2.34:** ...boom supported  
elevating work  
platforms...(spider lifts  
etc.)

**5.4: Sprayers**– “All tanks shall have means to determine the level of liquid in the tanks without opening the tank lid.”

## **3.7: Cranes and Knucklebooms— much more detail...**

**3.7.9:** The qualified arborist shall estimate the weight of the tree section to be suspended prior to cutting the section. The load weight shall be communicated to the crane operator...



## **6.3.4: Drop Starting a chainsaw is prohibited...**

**6.3.6:** A chain saw shall be operated with the left hand and thumb gripped firmly around the forward handle and the right hand and thumb gripped firmly around the rear handle unless it is not practicable and the employer demonstrates that a greater hazard is posed by operating the chain saw that way in that particular situation.

## **6.3.7: Second means of being secured:**

**Exception:** When the employer demonstrates that a greater hazard is posed by using a second means of being secured while operating a chain saw in that particular situation.

**8.1.27:** “working from a stem or spar without a suitable natural crotch...tie-in points or a tie-in method that positively prevents the climbing line from sliding down or up or off the stem during climbing operations.”

## **8.4.9: Horizontally distant rigging points:**

- Use of a backstay
- Use of an additional rigging system

**8.4.12:** Within the work area  
a drop zone shall be  
established prior to the  
start of rigging  
operations.

**8.4.18: A hand saw shall be  
with a worker aloft to  
make or finish cuts.**

**8.5.4: In manual tree felling operations, non-involved workers shall be beyond twice the height of the tree or trunk being removed.**



**8.5.6.3:** The chain saw operator shall use this path for egress once the felling cuts have been completed or the tree begins to fall.

**8.5.6.4: Other workers shall  
have and use retreat/  
escape paths...**

**8.5.10:** Ground workers handling taglines used during manual tree felling shall be outside of the striking distance of the tree, preferably 1.5 times the height of the tree away, or further if practicable.

**8.8: Pesticide Application**

**8.9: Mixing Pesticides**

**8.10: High-Pressure Air  
Excavation Equipment**

**8.11: Fertilization/Soil  
Management**