Crosscut Saw
Specific Training

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Chainsaw Specific Training
Crosscut Saw Training Overview

- Anatomy of the crosscut saw
- How the crosscut saw works
- Tools and equipment
- Crosscut saw operation
- Wedging
- Underbucking
- Transportation and storage
Crosscut Saw Parts
The Kerf

- Two cutters score each side of the kerf
- Rakers peel out the middle
- The set of the cutters makes the kerf wider than the saw blade
Crosscut Saw Tooth Patterns

- Plain Tooth
- M Tooth
- Great American Tooth
- Champion Tooth
- Lance Tooth
- Perforated Lance Tooth
Tools: Required

- PPE
- First aid kit
- Emergency Communication Device
- Crosscut saw(s) + handle(s) + sheath(s)
- Single-bit, straight-handled axe + sheath
- Crosscut bucking wedges
- Solvent/lubricant
- Pruning saw + sheath
- Flagging
# Personal Protective Equipment (PPE)

**Crosscut** *(All equipment must meet USFS standards)*

<table>
<thead>
<tr>
<th>Item</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>Hard Hat</td>
<td>Full brim or cap style</td>
</tr>
<tr>
<td>Eye Protection</td>
<td>Safety glasses or shield when chopping or driving wedges (ANSI z87.1)</td>
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<tr>
<td>Hearing Protection</td>
<td>Not Required</td>
</tr>
<tr>
<td>Long-sleeve Shirt</td>
<td>Required</td>
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<tr>
<td>Gloves</td>
<td>Slip-resistant, appropriate for the weather Cut-resistant, when filing &amp; handling saw conditions</td>
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<tr>
<td>Trousers</td>
<td>Loose fitting</td>
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<tr>
<td>Boots</td>
<td>Heavy-duty, cut resistant or leather, laced, with non-skid soles and adequate ankle support</td>
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<tr>
<td>First Aid</td>
<td>OSHA-compliant kit, one with each saw crew</td>
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</tbody>
</table>
Tools: Recommended

- Small shovel or combi-tool
- Underbucker
- Loppers
- Clippers
- File, hone
- Bark spud + sheath
- Solvent (Bio-diesel or orange based solvent)
Tools: Project Dependent

- Pulaski
- Peavey, cant hook
- Log carrier
- Double-bit axe + sheath
- Basic rigging: strap, rope, come-along
Saw Handles

**Placement:**
- Ensure all hardware is secure and properly installed
- Use the appropriate hole on side of saw blade
- Keep hand on top side of handle for increased power
- Flip handle when underbucking to gain clearance

**Removal:**
- Remove offside handle to finish single bucking
- Keep handle and hardware together
Stance & Body Position

- Use a wide, athletic stance adjacent to the end of the saw
- Front foot slightly angled towards the log
- Distance from the log will vary on saw size, diameter of log and natural restrictions
- Arms should always be bent a few degrees
Stance & Body Position

- Keep center of gravity moving back and forth, using your legs and body
- Front leg is bent, and back leg is straight at the end of the “push” motion
- Front leg is straight and back leg is bent at the end of the pull motion
Starting the Cut

- Begin with gentle, straight, consistent motions
- Use the smaller “starter” teeth when appropriate
- For two-person sawing, use the “air sawing” technique to find coordination and rhythm as the saw drops into the wood
- As the kerf becomes deeper, more aggressive cutting may be used
Crosscut Saw Operation Video
Crosscut Saw Operation Video
Wedging

Wedge as soon as the saw is fully in the log
Use wedges to turn a top bind into a bottom bind
Wedge Placement
Underbucking
Underbucking
Drive underbucker into wood, using axe. 
Set underbucker in line with intended kerf. 
Keep hand behind the pulley for added protection.
Saw pivots on underbucker, so downforce at the handle, translates into contact pressure as the saw teeth cut into the wood. This can be an awkward movement, easier to accomplish on the pull stroke (blue arrows) and more difficult skill to acquire on the push stroke (yellow arrows).
Transportation & Storage

- Always use cut-resistant gloves during handling and transport
- Avoid bending saws, especially modern saws
- Always cover saw with sheath during transport
- Use a rigid-style sheath for easier transport
- Avoid placing heavy tools on top of saws when in the bed of a truck
Transportation & Storage

- Remove one or both handles when hiking.
- In the field, store saws sheathed in a safe location with the teeth out of the dirt and debris.
- Do not lean saws vertically.
- For long-term storage, remove handles and hang from pin holes in a safe location.
- Keep handles and hardware with saw.
Questions?