Section Four: Limbing and Bucking

- Many loggers are hurt and sometimes killed during limbing and bucking operations.

- Felled trees often have a great mount of stored energy in their limbs and stems.

- You must be able to release this energy safely.

Before Limbing

- Look for overhead hazards such as hanging limbs.

- Check for spring poles

- Look for butt movement forward (creates back pressure on limbs)

- Look for butt twist (creates sideways pressure on limbs)

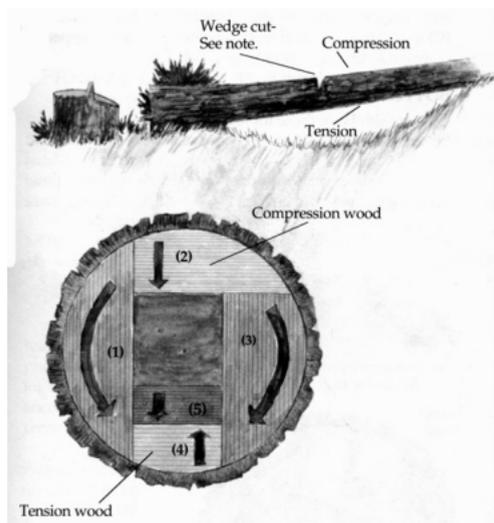- Check if the butt is off the ground (creates tension on the tree stem)

"Before rushing in to limb, check for overhead hazards".

Limbing and Bucking Requirements

- Limbing and bucking must be done on uphill side of each tree or log.

- Precautions, such as chocking or moving log to stable spot if movement or butt could strike the logger.
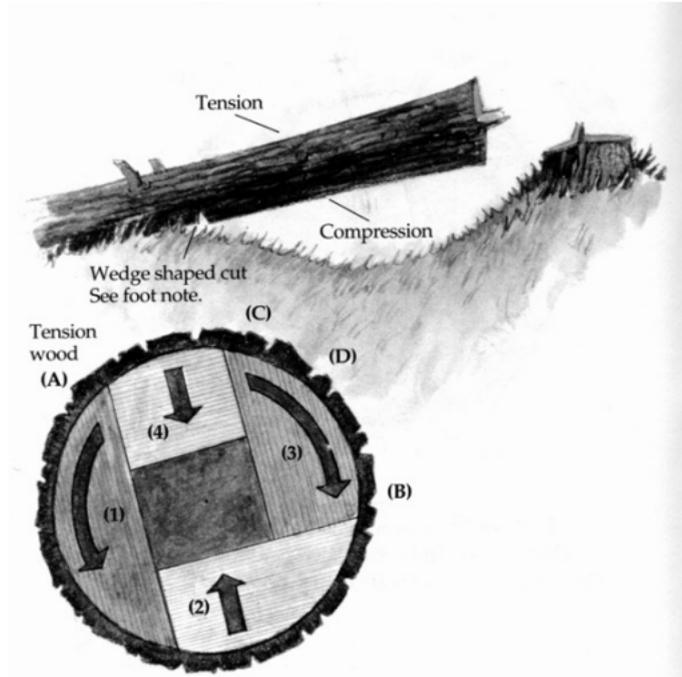
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Top Bind

- Arrows show saw travel.

- Center is heartwood that will break.

- May want to bore from point "C" to make cuts 1 & 3, if there is danger of log slabbing.

- Note: a wedge section could be removed when sawing cut (2) if the top bind is excessive, to allow the tree to close as cuts (4) and (5) are made.

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Bottom Bind

● Cuts similar to top bind, except top and bottom cuts are reversed.

Tension

Compression

Wedge shaped cut
See foot note.

Tension wood
(A)

(C)

(D)

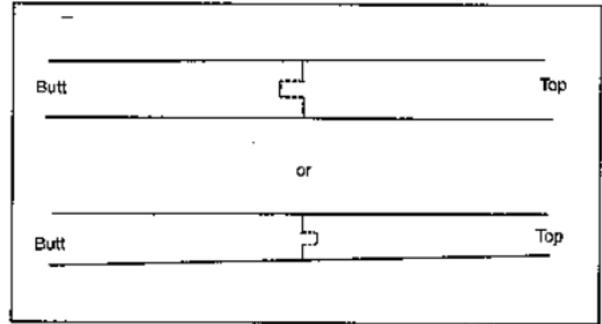(B)

(1) (2) (3) (4)

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Spring Poles

- Safest way to release a spring pole is to shave wood from the underside.

- To find best point to shave, determine straight line up from stump.

- Find where it meets a horizontal line over from highest point.
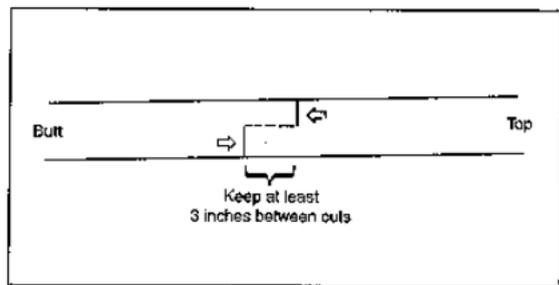
- Come down to pole at 45 degrees.

Rolling Trees

- If there is danger of tree or part of rolling on logging.

- Tongue and grove can be used.

- Bore cut stem first.

- Then up and down cuts are made so that each of them bypasses the bore cut.

- With all fibers cut, the tongue and grove will prevent movement.

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Twisting of trees and butts off ground

- Twisting of trees and butts off the ground create pressure on stem.

- Top lock can be used to prevent the top from kicking up.

- First cut is made on side of tree in compression.

- Second cut on side in tension.

- Top cut always made closer to tree top.
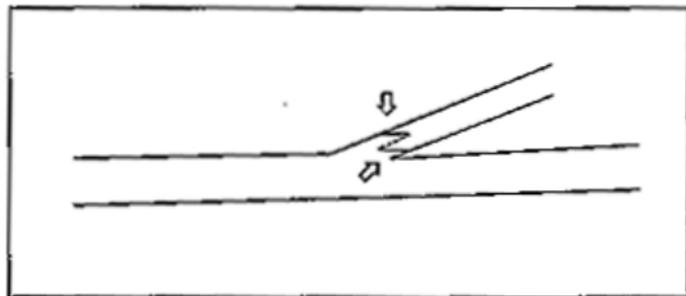
- Both cuts must by-pass so that all fiber is severed.

Butt ⇨ ⇦ Top

Keep at least
3 inches between cuts

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Back and sideways pressure on limbs

Limbs with pressure can severely injure a logger.
A good precaution is the Limb Lock.

1. First cut is made on top side or bottom side of limb.

2. Best to make first cut side with compression pressure.

3. Top cut is made closer to the trunk.

4. Bottom cut further up on limb.

5. The two cuts must by-pass.

Limbing and Bucking Check List

❏ Are there an overhead hazards?

❏ Have any spring poles been created?

❏ If so, will they be mechanically released or released by properly shaving wood from the underside?

❏ Are you planning on Limbing and bucking on the uphill side of the log?

❏ Will the log move or roll?

❏ If so, have you chocked or planned on controlled movement with cuts such as the top lock or tongue and grove?

❏ If you are bucking a wind thrown tree, have you chocked the root wad to prevent it from hitting you?