
Contents

Introduction	1
Historical Origin of Crosscut Saws	1
Types of Crosscut Saws	3
One-Person Crosscut Saws	3
Two-Person Crosscut Saws	3
Felling Saws	4
Bucking Saws	4
Saw Grinds	6
Flat Ground	6
Straight Taper Ground	7
Crescent Taper Ground	7
How a Saw Cuts	8
Cutter Teeth	8
Rakers	8
Teeth that Both Cut and Rake	8
Gullets	9
Tooth Spacing	9
Tooth Patterns	10
Plain Tooth (Peg Tooth) Pattern	10
M Tooth Pattern	10
Great American Tooth Pattern	10
Champion Tooth Pattern	10
Perforated Lance Tooth Pattern	10
Lance Tooth Pattern	10
Saw Handles	11
Types of Handles	11
Loop-Style Handles	11
Pin-Style Handles	12
Handle Installation and Maintenance	13
Saw Maintenance	14
Cleaning the Saw	14
Cleaning Solutions	15
Field Cleaning	15
Shop Cleaning	15
Checking for Straightness	15
Using Straightedges	15
Testing the Saw	16
Saw Filing	18
Saw Vises and Tools	18
Straightening	18
Jointing	18
Fitting Rakers	19
Tooth Pointing	19
Setting Teeth	19

Storage	21
Long-Term Storage	21
Storage in the Field	21
Saw Sheaths	21
Transporting Saws	23
Boats	23
Aircraft	23
Vehicles	24
Packstock	24
Hikers	25
Axes	27
Safety Considerations	27
Single-bit Axes	27
Wedges	28
Felling Wedges	29
Bucking Wedges	29
Underbucks	31
Axes for Underbucking	31
Mechanical Underbucks	31
Lubricants	33
Applying Lubricants	33
Preparation for Bucking and Felling	34
Safety Considerations	34
Personal Protective Equipment	34
Determining the Forces on the Log	34
Situational Awareness	35
Bucking Sizeup	35
Overhead Hazards	35
Side Slopes	35
Spring Poles	35
Suspended Logs	36
Pivot Points	37
Side Binds	37
Rootwad Movement	37
Unsound Wood	37
Log Movement	37
Planning the Cut	38
Types of Cuts	38
Determining the Safe Working Side of the Log	39
Planning and Clearing Escape Routes	39
Establishing a Work Platform	39
Providing Adequate Saw Clearance	39
Bark Removal	39
Tool Placement	39

Contents

Crew Communication _____	39
Determining Binds _____	40
Determining Bucking Locations _____	40
Points to Remember When Planning the Cut _____	40
Single-Bucking Techniques _____	41
Single Bucking With No Bind: Top Cutting _____	41
Single Bucking With Top Bind: Underbucking Required _____	42
Single Bucking With Top Bind: Top Cutting _____	43
Single Bucking With Bottom Bind: Top Cutting _____	43
Single Bucking With Bottom Bind: Underbucking _____	44
Single Bucking With End Bind _____	44
Single Bucking With Side Bind _____	44
Double-Bucking Techniques _____	44
Felling _____	46
Safety Considerations _____	46
Direction of Fall _____	47
Situational Awareness _____	47
Felling Sizeup _____	48
Establishing Escape Routes _____	48
Placing the Undercut _____	49
Chopping Out the Undercut With an Ax _____	50
Using a Crosscut Saw and an Ax _____	50
Making the Undercut With a Saw _____	50
Making the Back Cut _____	52
Concluding Principles _____	55
References Cited _____	56
Additional References _____	57
Sources for Crosscut Saws and Accessories _____	60
Vintage Saws _____	60
New Crosscut Saws and Accessories _____	60
Subscribe to Crosscut Saw Bulletin _____	61