Wood-Mizer® Toothsetter

Safety, Operation, Parts & Maintenance Manual

BMT150

Rev. A.00



Safety is our #1 concern! Read and understand all safety information and instructions before operating, setting up or maintaining this machine.

Form #2043

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SECTION 1 INTRODUCTION

1.1 About This Manual

This manual is to replace or to be used with all previous information received on the Wood-Mizer^{®1} equipment. All future mailings will be an addition to or a revision of individual sections of this manual as we obtain new information.

The information and instructions given in this manual do not amend or extend the limited warranties for the equipment given at the time of purchase.

This equipment is designed to work with Wood-Mizer blades only.



IMPORTANT! Read the entire Operator's Manual before operating the equipment. Take notice of all safety warnings throughout this manual and those posted on the equipment. Keep this manual with this equipment at all times, regardless of ownership.

^{1.}Wood-Mizer® is a registered trademark of Wood-Mizer Products, Inc.

1.2 Getting Service

Wood-Mizer is committed to providing you with the latest technology, best quality and strongest customer service available on the market today. We continually evaluate our customers' needs to ensure we're meeting current wood-processing demands. Your comments and suggestions are welcome.

General Contact Information

Toll free phone numbers are listed below for the *continental* U.S. and Canada. See the next page for contact information for specific Wood-Mizer locations.

	United States	Canada
Sales	1-800-553-0182	1-877-866-0667
Service	1-800-525-8100	1-877-866-0667
Website	www.woodmizer.com	www.woodmizer.ca
E-mail	woodmizer@woodmizer.com	oninfo@woodmizer.com

In Europe call your local distributor or our European Headquarters and Manufacturing Facility in Kolo, 114 Nagorna Street, Poland, at **+48-63-2626000**.

Office Hours:

Country	Monday - Friday	Saturday	Sunday
U.S. ¹	8 a.m. to 5 p.m.	8 a.m. to 12 p.m. (Indianapolis Office Only)	Closed
Poland	7 a.m. to 3 p.m.	Closed	Closed

¹ All times are Eastern Standard Time.

Wood-Mizer will accept these methods of payment:

- Visa, Mastercard, or Discover
- COD
- Prepayment
- Net 15 (with approved credit)

Be aware that shipping and handling charges may apply. Handling charges are based on size and quantity of order. In most cases, items will ship on the day they are ordered. Second Day and Next Day shipping are available at additional cost.

Wood-Mizer Locations

USA World Headquarters

Serving North & South America, Oceania, East Asia

Wood-Mizer LLC 8180 West 10th Street Indianapolis, IN 46214

Phone: 317.271.1542 or 800.553.0182 Customer Service: 800.525.8100

Fax: 317.273.1011

Email: infocenter@woodmizer.com

Canadian Headquarters

Serving Canada

Wood-Mizer Canada 396 County Road 36, Unit B Lindsay, ON K9V 4R3

Phone: 705.878.5255 or 877.357.3373

Fax: 705.878.5355

Email: ContactCanada@woodmizer.com

Brazil Headquarters

Serving Brazil

Wood-Mizer do Brasil Rua Dom Pedro 1, No: 205 Bairro: Sao Jose Ivoti/RS CEP:93.900-000

Tel: +55 51 9894-6461/ +55 21 8030-3338/ +55 51

3563-4784

Email: info@woodmizer.com.br

Europe Headquarters

Serving Europe, Africa, West Asia

Wood-Mizer Industries Sp z o.o. Nagorna 114

62-600 Kolo, Poland

Phone: +48.63.26.26.000 Fax: +48.63.27.22.327

Branches & Authorized Sales Centers

For a complete list of dealers, visit www.woodmizer.com

SECTION 2 GENERAL INFORMATION

2.1 Safety



This symbol calls your attention to instructions concerning your personal safety. Be sure to observe and follow these instructions. This symbol accompanies a signal word. The word **DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury. **WARNING** suggests a potentially hazardous situation which, if not avoided, could result in death or serious injury. **CAUTION** refers to potentially hazardous situations which, if not avoided, may result in minor or moderate injury to persons or equipment. Read all safety instructions before operating this equipment and observe all safety warnings!

Read and observe all safety instructions before operating this equipment! Also read any additional manufacturer's manuals and observe any applicable safety instructions including dangers, warnings, and cautions.

Always be sure that all safety decals are clean and readable. Replace all damaged safety decals to prevent personal injury or damage to the equipment. Contact your local distributor, or call your Customer Service Representative to order more decals.

Safety instructions are listed in this section by the following operations:

- Blade Handling
- Machine Operation

Blade Handling



WARNING! Always wear gloves and eye protection when handling bandsaw blades. Keep all persons away from area when coiling or carrying a blade.

WARNING! Before installing the blade, inspect it for damage and cracks. Always handle the blade with extreme care. Use suitable carrier equipment for transporting the blades.

Machine Operation



DANGER! Make sure all guards and covers are in place and secured before operating the toothsetter. Failure to do so may result in serious injury.

DANGER! Keep all persons away from moving parts when operating this machine. Failure to do so will result in serious injury.

DANGER! Always keep hands away from moving bandsaw blade. Failure to do so will result in serious injury.



WARNING! Always wear eye protection when operating this machine. Failure to do so may result in serious injury.

WARNING! Secure all loose clothing and jewelry before operating this machine. Failure to do so may result in serious injury or death.

WARNING! The toothsetter should be operated only by adults who have read and understood the entire operator's manuals.

WARNING! The illumination at the operator's position should be at least 300 lux. The light source can not cause stroboscopic effect.

Toothsetter Decals

See Table 2-1. The Toothsetter decals are shown below.

Decal	Part Number	Description
	069680	WARNING! Secure all loose clothing and jewelry before operating this machine. Failure to do so may result in serious injury or death. WARNING! Always wear gloves and eye protection when handling bandsaw blades. WARNING! Read the entire Operator's Manual before operating the equipment. Take notice of all safety warnings throughout this manual and those posted on the equipment. Keep this manual with this equipment at all times, regardless of ownership.
(i)	069685	WARNING! Read the entire Operator's Manual before operating the equipment. Take notice of all safety warnings throughout this manual and those posted on the equipment. Keep this manual with this equipment at all times, regardless of ownership.
CE	P85070	CE Safety Certification

	069693	DANGER! Always be aware of and take proper protective measures against rotating shafts, pulleys, fans, etc. Always stay a safe distance from rotating members and make sure that loose clothing or long hair does not engage rotating members resulting in possible injury.
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2.2 Component ID

See Figure 2-1. Major components of the toothsetter are shown below:

- 1. Feed/Setter Handle,
- 2. Index Slide,
- 3. Blade Rest Pins,
- 4. Blade Support Arms,
- 5. Toothset Gauge,
- 6. Front Clamp,
- 7. Blade Height Adjustment Knob
- 8. Toothset Adjusters.

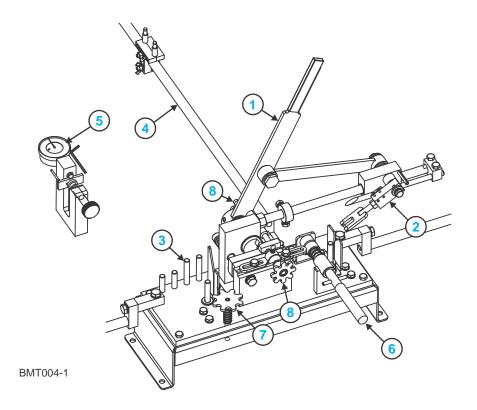


FIG. 2-1

2.3 Dimensions and Specifications

See Figure 2-2. Dimensions of the Dual Setter are shown below.

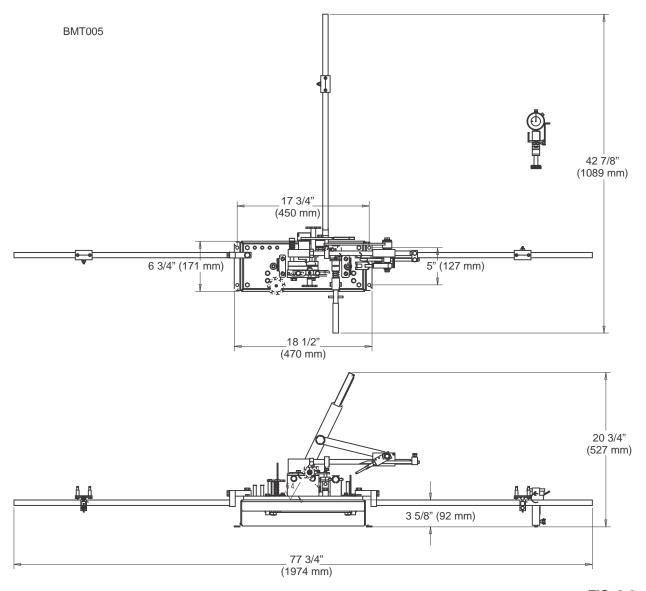


FIG. 2-2

See Table 2-2. The overall dimensions and weight are listed below.

	Length	Width	Height	Weight
BMT150	42 7/8" (1089 mm)	77 3/4" (1974 mm)	20 3/4" (527 mm)	lbs. (kg)

SECTION 3 OVERVIEW

3.1 Toothsetter Introduction

There are four steps to maintaining blades used on the Wood-Mizer sawmill. They should ALWAYS be followed in this order:

- 1. Blade Cleaning
- 2. Sharpening
- 3. Deburring
- 4. Toothsetting

See Figure 3-1. The blades supplied by Wood-Mizer have a raker-style set in the teeth. If you look at a blade from the top, you will see that the teeth are set (or bent out) in a repeating sequence; straight, left and right. The teeth that are set left and right do the cutting. The straight teeth (rakers) clear the cut of sawdust.



FIG. 3-1

See Figure 3-2. As the blade is sharpened, the tip of the tooth recedes and the set becomes smaller. Correct setting is one of the most important factors in the cutting ability of a blade. Check used blades regularly to see if they need resetting.

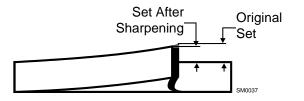


FIG. 3-2

3.2 Deburring The Blade

Sharpening leaves tiny metal burrs on the back side of the teeth. New blades also have burrs. These burrs MUST be removed before the set is checked. If they are not removed, they may cause the toothsetter to give false readings.

To remove burrs, take the blade from the Sharpener. Invert it, so that the inside of the blade is facing out. Drag a stick of hardwood across the blade in the opposite direction that the teeth cut. (Use the weld in the blade as a reference point for starting and stopping.)

Cutting with the blade also removes burrs. If the blade you are about to set has been used after sharpening, you will not need to deburr it. Clean the blade before removing from the mill by running the Water Lube Option for 15 seconds. Remove the blade and wipe dry with a rag to prevent rusting.



SECTION 4 SETUP

4.1 Toothsetter Mount

Place the setter on a table or workbench sturdy enough to support the weight of the machine. Be sure there is enough room on either side of the setter to allow for the blade to travel. If desired, the unit can be bolted to the table through the holes provided in the bottom of the base frame.

4.2 Blade Support Installation

Install the threaded blade arm mounting blocks (1) to the toothsetter. Attach the three blade support arms (2) to the mounting blocks.

See Figure 4-1.

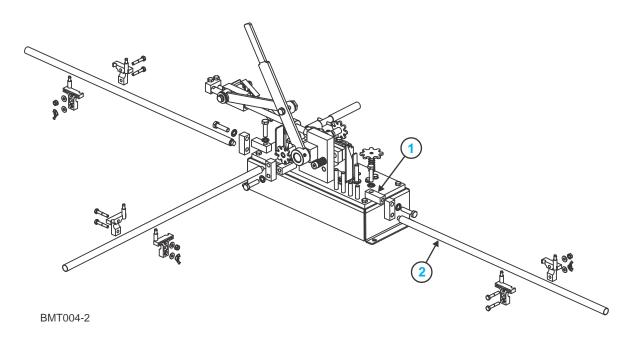


FIG. 4-1 BMT150

See Figure 4-2. Assemble a blade support guide onto the end of each blade support arm. Bolt from the hexed side of the guide assembly. Tighten the top bolts with the self-locking nuts. Tighten the bottom bolts with the wing nuts.

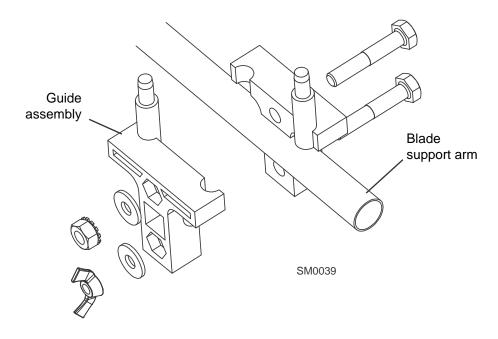


FIG. 4-2

The guides should be about 1" (2.5 cm) from the ends of the right and rear tubes and about 2.5" (6.0 cm) from the end of the left tube. Final adjustments will be made later.



4.3 Gauge Calibration

The tooth set gauge accurately measures the set of any blade tooth. The gauge needs to be assembled and calibrated before use.

See Figure 4-3. Insert the dial gauge assembly into the hole in the block housing. Clamp the calibrating pin in position at the center of the dial gauge foot. Push the gauge assembly forward until the foot just touches the pin and dial needle moves .005 to .010. Tighten the locking screw with the provided hex wrench (do not over-tighten). Loosen the dial lock on the gauge and rotate the dial face until the needle reads zero. Tighten the dial lock.

Unclamp the calibrating pin from the set master gauge clamp by turning the clamp knob counterclockwise. With the pin not clamped, the set master gauge needle should read between -.005 and -.010. If not, reclamp the pin, loosen the locking screw and move the set master gauge assembly back so the foot does not contact the pin. Repeat the steps above until the dial needle reads zero with the calibrating pin clamped and between -.005 and -.010 without the pin clamped. This ensures the dial foot extends beyond the clamp plate a slight amount and will read zero when the foot is aligned with the clamp plate.

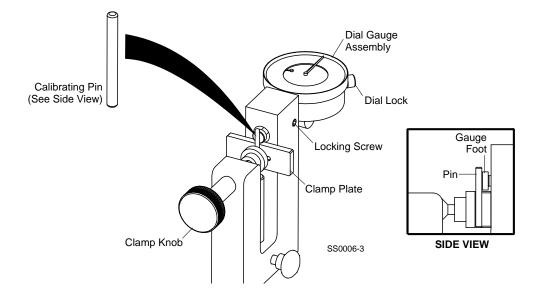


FIG. 4-3

SECTION 5 OPERATION



WARNING! Always wear gloves and eye protection when handling bandsaw blades. Changing blades is safest when done by one person! Keep all other persons away from area when coiling, carrying or changing a blade. Failure to do so may result in serious injury.

Once the toothsetter alignments have been checked and adjustments have been made, you are ready to measure and set blades.

Sharpening removes metal from the face of the tooth. This eventually reduces the set to a point where the blade will not cut very well. Set should not vary more than $(\pm)0.002$ from one tooth to the next and $(\pm)0.002$ from one side of the blade to the other side.

The following steps will take you through operation of the toothsetter.

Note: Refer to the <u>Wood-Mizer</u>® <u>Blade Handbook</u> for recommended set specifications for your sawing application.

5.1 Blade Installation

1. Clean the blade and deburr before putting it in the toothsetter. Otherwise, sap buildup on the blade or tooth will give false set readings. Metal burrs created by sharpening also will cause false readings.

Mount the blade in the toothsetter. Place blade between the clamping plates and on the three guide assemblies.

5.2 Toothsetter Adjustment and Operation



WARNING! Always wear gloves and eye protection when handling bandsaw blades. Changing blades is safest when done by one person! Keep all other persons away from area when coiling, carrying or changing a blade. Failure to do so may result in serious injury.

See Figure 5-1.

1. Mount the blade in the toothsetter. Pull the blade clamp handle (1) open and flip the index arm (2) up. Place the blade between the clamping plates and on the three guide assemblies. Release the blade clamp handle (1) to secure the blade in place.

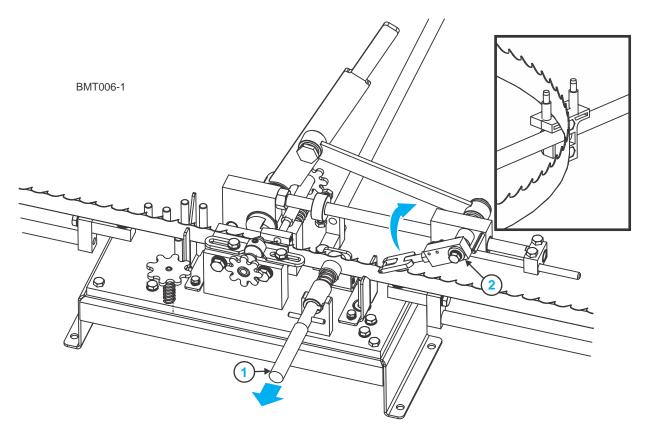


FIG. 5-1

See Figure 5-2.

2. Adjust the blade rest pins. Rest the blade evenly on the two blade rest pins (1) on each side of the clamp. Use the blade height adjustment knob (2) to adjust the rest pins until the gullet of the blade lies just below the top of the clamp plates (approximately 1/16" (1.5mm) below setter clamp plate). (Deburring will remove burrs from the back side of the teeth, but may not remove burrs from the gullet area.) NOTE: Make sure the blade is level. If necessary, use one of the rest pin adjustment nuts (3) to raise or lower one of the blade rest pins to level the blade.

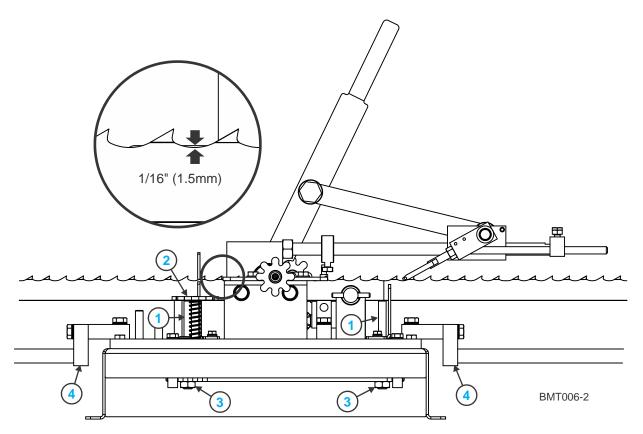


FIG. 5-2

3. Make final adjustments to blade support arms and guide assemblies. Adjust to assure the blade travels smoothly. Pivot the blade arm mount blocks (4) as necessary to make sure the blade support arms are properly adjusted. Blade should rest on rear guide, but should not touch the bottom of either side guide assembly.

4. Position the blade. Turn the blade to bring a weld into the clamping/setting assembly. Use the weld as a reference point for starting and stopping. Start with the first tooth to the right of the weld that has been set back away from the operator.

See Figure 5-3. Position the teeth in front of the setter adjusters so their edges are aligned with the center of the setting point (3). **NOTE:** The setter is factory-set for Wood-Mizer® Industrial blades with 7/8" tooth spacing. Once a rear-set tooth is indexed in front of the right setter adjuster, a forward-set tooth should be positioned in front of the left setter adjuster. To adjust the setter for different tooth spacing, loosen the two mount bolts (2) securing the left setter adjuster (1) to the blade clamp and slide the adjuster to position the setter adjuster behind a forward-set tooth and aligned with center of the setting point (3). Retighten the mounting bolts.

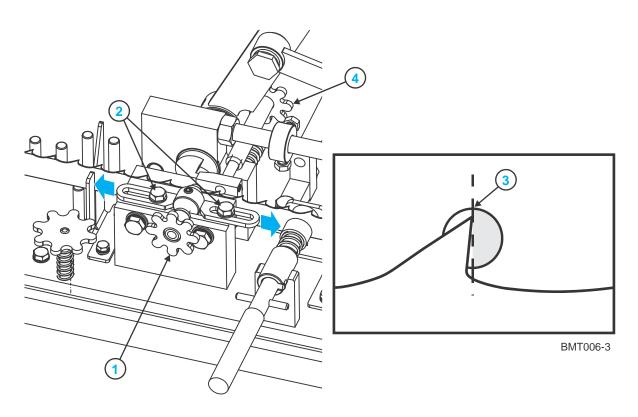


FIG. 5-3

NOTE: Use the setter adjuster knobs (1 and 4) to increase or decrease the forward-set and rear-set tooth settings as necessary.

5. The index arm is factory-set for Wood-Mizer® Industrial blades with 7/8" tooth spacing. Move the setter handle (1) all the way to the left to set the blade teeth and move the blade. Check the index arm is firmly against the tooth. To make small adjustments, loosen the index arm nut (3) and move the arm tight against the tooth. If necessary, adjust the locking collar (4) to stop the setter handle movement. To adjust the locking collar, loosen the two bolts on the locking collar and move the locking collar as necessary. Retighten the bolts.

See Figure 5-4.

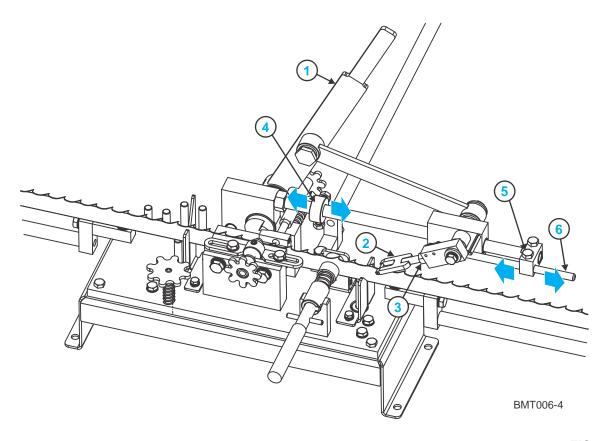


FIG. 5-4

Check if the index arm pushes the correct number of teeth. If necessary, loosen the adjustment bolt (5) and adjust the index lift rod (6) so the index arm pushes the blade to the next two teeth to be set. Retighten the adjustment bolt to secure the index lift rod in place.

6. Check the tooth set. Move the setter handle all the way to the right to open the clamp. Disengage the blade clamp and mark the two teeth to be checked with a marker. Then move the blade to check the tooth set.

See Figure 5-5. Place the set master gauge around the blade to measure tooth set. Turn the lock knob counterclockwise to loosen and adjust the blade height rest pin up or down. Adjust so when the blade rests on the pin, the gullet of the blade is just below the clamp plate. Retighten the lock knob.

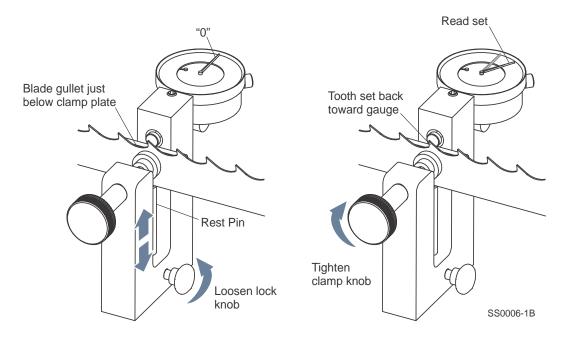


FIG. 5-5

Slide the set master gauge assembly through the blade and clamp on the right marked tooth. Turn the clamp knob clockwise to securely clamp the blade and read the set measurement displayed by the set master gauge. Note the tooth set measurement.

Loosen the clamp knob and remove the set master gauge assembly from the blade. Rotate the set master gauge to the other side of the blade to measure tooth set in the opposite direction. Find the sixth tooth (for blades with 7/8" tooth spacing) to the left set in the opposite direction and place the set master gauge around the blade to measure tooth set (blades with other tooth spacing may require a different tooth count). Note the tooth set measurement and mark the measured tooth with a marker. Loosen the clamp knob and remove the set master gauge assembly from the blade.

SECTION 6 MAINTENANCE

6.1 Toothsetter Maintenance

- Keep the toothsetter clean.
- Keep all moving parts lubricated with a light penetrating oil.
- Remove the clamping assembly occasionally and clean any debris that may have collected between the clamping plates.

SECTION 7 REPLACEMENT PARTS

7.1 How To Use The Parts List

- Use the index above to locate the assembly that contains the part you need.
- Go to the appropriate section and locate the part in the illustration.
- Use the number pointing to the part to locate the correct part number and description in the table.
- Parts shown indented under another part are included with that part.
- Parts marked with a diamond (♦) are only available in the assembly listed above the part.

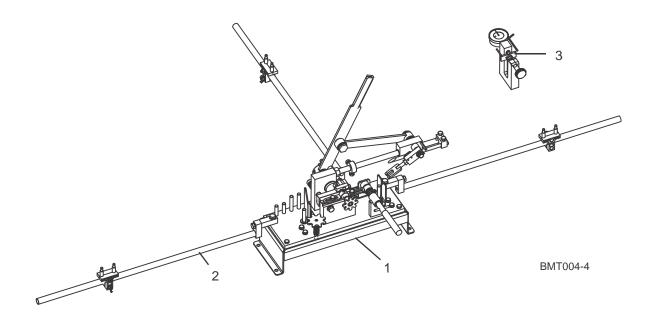
See the sample table below. Sample Part #A01111 includes part F02222-2 and subassembly A03333. Subassembly A03333 includes part S04444-4 and subassembly K05555. The diamond (♦) indicates that S04444-4 is not available except in subassembly A03333. Subassembly K05555 includes parts M06666 and F07777-77. The diamond (♦) indicates M06666 is not available except in subassembly K05555.

7.2	Sample Assembly			
REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART#	QTY.	
	Sample Assembly, Complete (Includes All Indented Parts Below)	A01111	1	
1	Sample Part	F02222-22	1	
	Sample Subassembly (Includes All Indented Parts Below)	A03333	1	
2	Sample Part (◆ Indicates Part Is Only Available With A03333)	S04444-4	1	•
	Sample Subassembly (Includes All Indented Parts Below)	K05555	1	
3	Sample Part (◆ Indicates Part Is Only Available With K05555)	M06666	2	•
4	Sample Part	F07777-77	1	

To Order Parts:

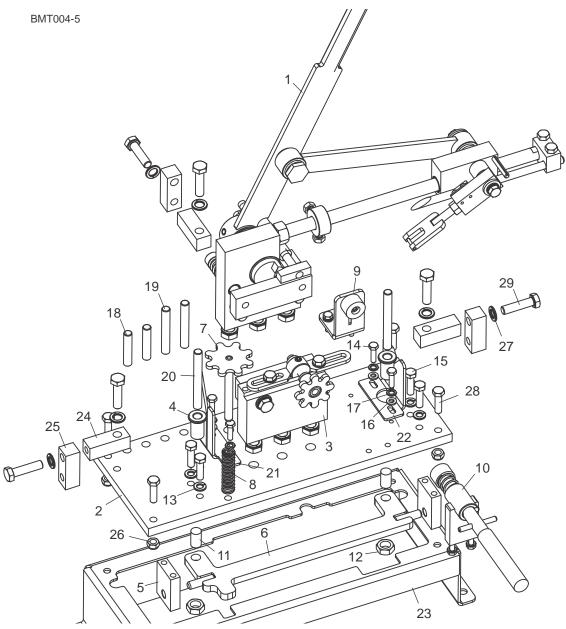
- From the continental U.S., call *1-800-525-8100* to order parts. Have your customer number, serial number, and part numbers ready when you call.
- From other international locations, contact the Wood-Mizer distributor in your area for parts.

7.3 Toothsetter Parts



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	TOOTHSETTER, BMT150 DUAL MANUAL	BMT150	1	
1	Toothsetter Parts (See Section 7.3)			
2	Blade Support Arm Parts (See Section 7.10)			
3	Gauge, Tooth Setter Master	060490	1	
	MANUAL, BLADE HANDBOOK	M600	1	

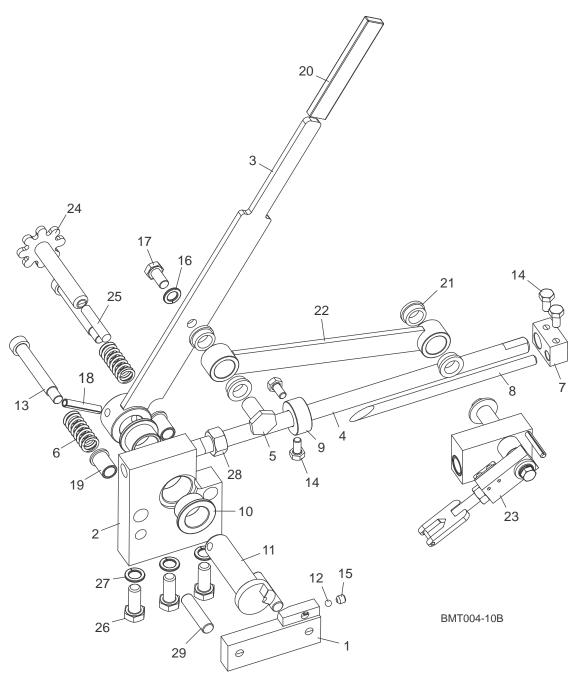
7.4 Toothsetter Assembly



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	SETTER ASSEMBLY, DUAL SLIDE	066804	1	
1	Setter Clamp Assembly Parts (See Section 7.5)			
2	Plate, Base	066805	1	
3	Left Front Clamp Assembly Parts (See Section 7.7)			
4	Bushing, Guide	066809	2	

5	Block, Adjuster Mount	066812	2	
6	Adjuster Weldment, Blade	066813	1	
7	Adjuster Weldment, Blade Height	066815	1	
8	Spring, .60 ODx2-1/2x.098 Wire	066816	1	
9	Rear Clamp Assembly Parts (See Section 7.9)			
10	Right Front Clamp Assembly Parts (See Section 7.8)			
11	Screw, 1/2-20x1 SHOP Set	F05008-65	2	
12	Nut, 1/2-20 Hex Jam	F05010-16	2	
13	Washer, 8mm Split Lock	F05011-45	4	
14	Bolt, M6-1 x 25 Class 8 HHC	F05020-33	4	
15	Screw, M8-1.25x30 HHC	F05021-11	4	
16	Washer, M6 Flat Class 4	F05026-1	4	
17	Washer, M6 Split Lock	F05026-2	4	
18	Pin, 10MM x 50MM Dowel	F05029-14	2	
19	Pin, 10MM x 70MM Dowel	F05029-15	2	
20	Pin, 10MM x 90MM Dowel	F05029-16	2	
21	Plate, Outfeed Guide	066846	1	
22	Plate, Infeed Guide	066847	1	
23	FORMED WELDMENT, SETTER BASE	066862	1	
24	BLOCK, BLADE ARM MOUNTING	066864	3	
25	BLOCK, BLADE ARM MOUNTING	066865	3	
26	NUT, M8-1.25 HEX NYLON LOCK	F05010-132	4	
27	WASHER, 10MM SPLIT LOCK	F05011-88	6	
28	SCREW, M8-1.25 X 30 HEX HEAD CAP	F05021-11	4	
29	BOLT, M10 X 40 HEX HEAD FULL THREAD 8.8	F81003-16	6	

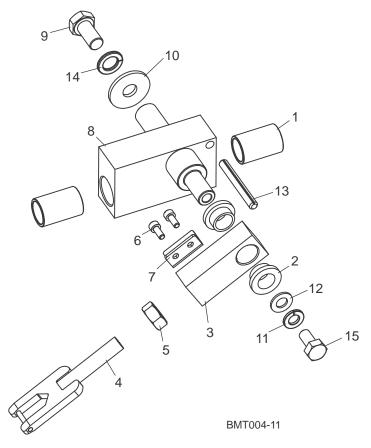
7.5 Toothsetter Clamp Assembly



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	CLAMP ASSEMBLY, SETTER	066801	1	
1	Block, Back Clamping	066803	1	

	BL LW LL & B. LOI	1 222242		_
2	Block Weldment, Back Clamp	066818	1	
3	Arm Weldment, Indexer	066821	1	
4	Shaft, Index Guide	066825	1	
5	Shaft, Pivot	066840	1	
6	Spring, .72OD x 1-3/4L x .105 Wire	066859	2	
7	Block, Index	066860	1	
8	Rod, Index Lift	066861	1	
9	Collar, 5/8 x 1-38 Locking	066866	1	
10	Bushing, 1x1 1/4x3/4 Flange Bronze	P737	2	
11	Shaft, Ramp	066868	1	
12	Ball, 1/4" Nylon 6/6	066869	1	
13	Bolt, Machined 12MMx70MM Shoulder	074187	2	
14	Bolt, M8x1.25x16mm HH	F05004-47	4	
15	Screw, M8-1.25 x 8 SH Cup Pt Set	f05021-8	1	
16	Washer, 10mm Split Lock	F05011-88	1	
17	Bolt, M10-1.25x20mm HH FT 8.8	F05004-207	1	
18	Pin, 8MM x 45MM Roll	F05029-17	1	
19	Bushing, 12x16x25MM Bronze	066867	2	
20	Grip, Foam Flat 1/4x3/4	049008	1	
	Link Arm Assembly, Setter	066838	1	
21	Bushing, 5/8x7/8x1/4 Bronze	018819	4	
22	Arm Weldment, Link	066837	1	
23	Dual Setter Index Slide Assembly Parts (See Section 7.6)	•		
	Adjuster Assembly, Setter	066870	1	
24	Knob Weldment, Set Adjuster Long	066876	1	
25	Screw, 3/8-24 x 2 SHOP Set	F05007-238	1	
26	Bolt, M12x1.75 x 30mm HH Zinc	F05008-175	3	
27	Washer, 12mm Split Lock	F05011-123	3	
28	Nut, M16-2 Class 8 Hex	F05027-11	1	
29	Pin, 12MM x 50MM Dowel	F05029-12	2	

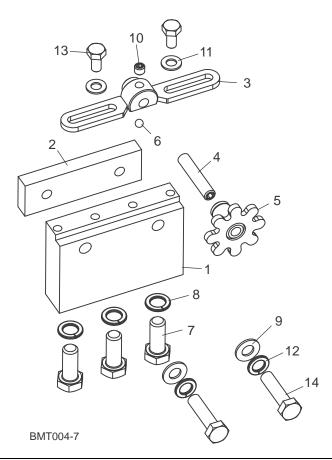
7.6 Index Slide Assembly



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.
	INDEX SLIDE ASSEMBLY, DUAL SETTER	066863	1
1	Bushing, 16 x 20 x 30mm Bronze	066878	2
	Push Pawl Assembly, Setter	074393	1
2	Bushing, 1/2" ID x 5/8" OD x 3/8" Long FI	049007	2
3	Block, Index	074392	1
4	Push Pawl Weldment, Slide Setter	074355	1
5	Nut, M10-1.5 Hex	F05010-85	1
6	Bolt, M47 x 10 SHC	F05020-14	2
7	Plate, Index Lift	066872	1
8	Block Weldment, Index Setter	066834	1
9	Bolt, M10-1.25x20mm HH FT 8.8	F05004-207	1
10	Washer, M10 Fender	F05026-10	1
11	Washer, 8mm Split Lock	F05011-45	1
12	Washer, M8 Flat	F05026-4	1
13	Pin, 6MM x 50MM Roll	F05029-8	1

14	Washer, 10mm Split Lock	F05011-88	1	
15	Bolt, M8 x 1.25 x 16mm HH	F05004-47	1	

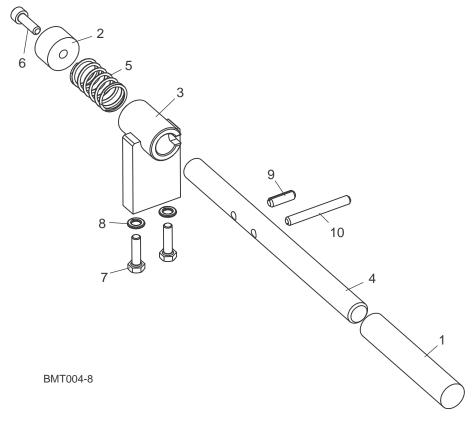
7.7 Left Front Clamp Assembly



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	CLAMP ASSEMBLY, FRONT	066808	1	
1	Block, Front Clamp	066806	1	
2	Block, Clamp	066807	1	
3	Adjuster Weldment, Setter Screw	066824	1	
	Adjuster Assembly, Setter	066842	1	
4	Screw, 3/8-24 x 2 SHOP Set	F05007-238	1	
5	Knob Weldmnt, Set Adjuster Short	066875	1	
6	Ball, 1/4" Nylon 6/6	066869	1	
7	Bolt, M12x1.75 x 30mm HH Zinc	F05008-175	3	
8	Washer, 12mm Split Lock	F05011-123	3	
9	Washer, M10 Flat SAE	F05011-134	2	
10	Screw, M8-1.25 x 8 SH Cup Pt Set	f05021-8	1	
11	Washer, M8 Flat	F05026-4	2	
12	Washer, 10mm Split Lock	F05011-88	2	

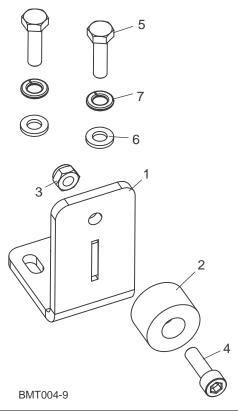
13	Bolt, M8x1.25x16mm HH	F05004-47	2	
14	Bolt, M10x40 8.8 Hex Head Full Thread Z	F81003-16	2	

7.8 Right Front Clamp Assembly



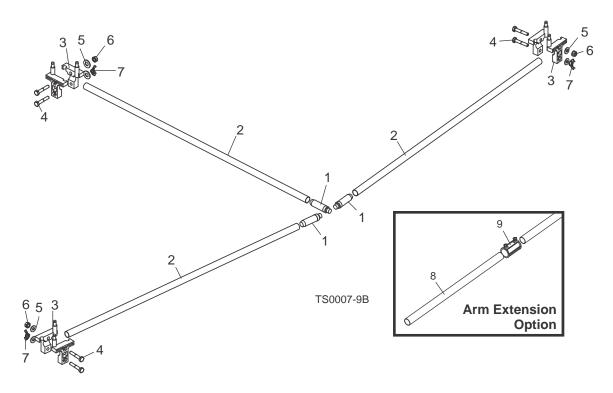
REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	CLAMP ASSEMBLY, FRONT	066857	1	
1	Grip, 5/8" ID Hand	004742	1	
2	Pad, 1" Dia Wear	066851	1	
3	Clamp Weldment, Blade	066855	1	
4	Shaft, Blade Clamp	066856	1	
5	Spring, .85ODx1-1/2L x .075 Wire	066858	1	
6	Screw, M6-1 x 20 SHC	F05020-15	1	
7	Bolt, M6-1 x 25 Class 8 HHC	F05020-33	2	
8	Washer, M6 Split Lock	F05026-2	2	
9	Pin, 6MM x 20MM Spring Roll	f05029-13	1	
10	Pin, 6MM x 50MM Roll	F05029-8	1	

7.9 Rear Clamp Assembly



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	CLAMP ASSEMBLY, REAR	066852	1	
1	Bracket Weldment, Blade Guide	066850	1	
2	Pad, 1" Dia. Wear	066851	1	
3	Nut, M6-1.0 Nylon Lock	F05010-200	1	
4	Screw, M6-1 x 20 SHC	F05020-15	1	
5	Bolt, M6-1 x 25 Class 8 HHC	F05020-33	2	
6	Washer, M6 Flat Class 4	F05026-1	2	
7	Washer, M6 Split Lock	F05026-2	2	

7.10 Blade Support Arms



REF	DESCRIPTION (♦ Indicates Parts Available In Assemblies Only)	PART NUMBER	QTY.	
	ARM KIT, BLADE SUPPORT	A04545	1	
	Tube Assembly, Blade Support	A04550	3	
1	Plug, Tube Support	P04552	1	
2	Tube, Blade Support	M04551	1	•
	Blade Support Assembly, Replacement	A10617	1	
	Bag Assembly, Blade Support	A10615	1	
3	Guide W/Post, Blade Support	S10611	6	
4	Bolt, 1/4-20 X 1 1/2" Hex Head Grade 2	F05005-5	6	
5	Washer, 1/4" SAE Flat	F05011-11	6	
6	Nut, 1/4-20 Self-Locking	F05010-9	3	
7	Nut, 1/4-20 Wing	F05010-13	3	
	EXTENSION KIT, BLADE SUPPORT ARM	A20912 ¹	1	
8	Arm, Support Arm 12" Extension	S10625	4	
9	Coupler, 1/2" EMT Conduit	P04587	4	
	Instruction Sheet, Blade Support Arm Extension Kit	M20913-391	1	

¹ Includes parts to extend the left and right blade support arms of the sharpener and toothsetter to support longer blades. The rear support arms will not require an extension.

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