



BETTCHER Industries, Inc.

Operating Instructions & Spare Parts List for the

BETTCHER®

E-Z EDGE

SHARPENER

Manual # 173297

Issued : June 15, 2018
TMC # 814

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Operating Instructions in other languages are available on request. Additional copies of Operating Instructions are available by calling or writing the local Representative or by contacting:

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The Information Provided in these Operating Instructions is Important
to Your Health, Comfort and Safety.
For Safe and Proper Operation, Read this Entire Manual
Before Using this Equipment.



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Original Instructions

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Section 1

Safety and Ergonomics

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Safety Recommendations and Warnings

Warnings identify conditions that can cause serious bodily injury to the user.

Cautions identify conditions that are important to the operation, care and maintenance of the machine.

 <u>W A R N I N G</u> 
<p>THE MANUFACTURER ASSUMES NO LIABILITY FOR ANY UNAUTHORIZED DESIGN CHANGES, MODIFICATION, OR USE OF PARTS NOT SUPPLIED BY THE MANUFACTURER OR THE USE OF PARTS NOT DESIGNED FOR USE ON THAT SPECIFIC MODEL, INCLUDING CHANGES IN OPERATING PROCEDURES MADE BY THE OWNER OR ANY OF HIS PERSONNEL.</p> <p>THE USE OF PARTS OTHER THAN THOSE LISTED IN THE PARTS LIST FOR THE SPECIFIC MODEL MAY CAUSE BLADE LOCK-UP RESULTING IN AN UNSAFE OPERATING CONDITION.</p>



Section 2

Designated Use

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Designated Use 2-2



Designated Use

The Bettcher® E-Z EDGE sharpener has been designed for use with Bettcher® Whizard® Trimmers. Its function is to sharpen the blade's cutting edge effectively and inexpensively.

Use of the Bettcher® E-Z EDGE sharpener will ensure your operators a sharp blade to work with at all times.

The Bettcher® E-Z EDGE sharpener model number, located on the I.D. steel, or on the plastic locator, indicates which Whizard® Trimmer it should be used with.



Section 3

Instructions for Operation

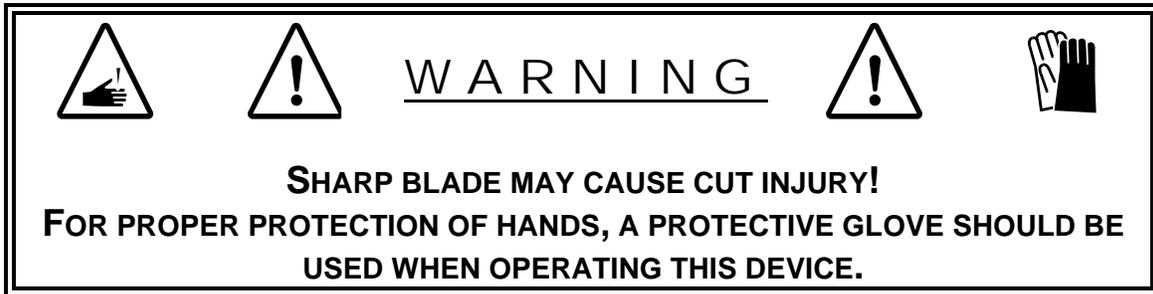
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Safety Precautions

The Bettcher® E-Z EDGE sharpener is used with the Bettcher® Whizard® Trimmer. Proper protective equipment should be worn when using a Bettcher® E-Z EDGE sharpener.



The sharpening operation should be performed away from the product in order to avoid possible contamination of the product.



Instructions for Operation

Operating Procedure – Straight Blade and Cone Blade Models

Models: 350, 440, 620, 500 and 750

- Hold the Bettcher® Whizard® Trimmer in your right hand, with the blade facing down and running.
- Hold the Bettcher® E-Z EDGE Sharpening device in your left hand, with the steeling and sharpening rods pointing down.
- Place the Bettcher® E-Z EDGE's locator over the trimmer blade housing. Lower the locator down on the blade housing until the blade housing is held in the locator.



- While holding the Bettcher® E-Z EDGE Sharpening device locator down firmly on the trimmer blade housing, push the sharpening rod toward the trimmer blade. Hold the sharpening rod against the outside blade edge for a few seconds, with very light pressure applied. This sharpens the outside edge of the blade.





Operating Procedure – Straight Blade and Cone Blade Models

(Continued)

Models: 350, 440, 620, 500 and 750

- Pull the sharpening rod away from the trimmer and hold the steeling rod against the inside blade edge for a few seconds, with very light pressure applied. This steels the inside edge of the blade.



Note: The forward and backward motion need only be performed once to sharpen and steel the blade's edge.

Note: It is important to hold the trimmer and the locator flat to one another while steeling and to only apply light pressure against the blade with the steeling rod. Do not tilt or rock the trimmer in the locator while steeling as this will possibly dull the cutting edge.

- After performing the forward and backward motion to sharpen and steel the blade edge, simply lift the locator up and off of the trimmer.



Instructions for Operation

Operating Procedure – Flat Blade Models

Models: 625, 505, 850, 880-B, 880-S, 1000, 1300, 1400, 1500, 1850 and 1880

- Hold the Bettcher Whizard® Trimmer in your right hand, with the blade facing down and running.
- Hold the trimmer over the sharpener; insert the trimmer into the locator by tilting the right side of the trimmer blade down at a slight angle and sliding it under the slight lip on the right end of the locator. The center of the blade diameter should be between the two rods.



- With very light pressure applied, hold the blade down on the rods and slide the trimmer along the rods toward the I.D. steel until the locator stops. (Approximately ½ inch of travel.)
- Hold the blade against the I.D. steel for a few seconds, and then slide the trimmer back away from the steel.



Note: The forward and backward motion need only be performed once, with a relatively slow stroke.

- Lift the tool out of the locator.



Section 4

Maintenance

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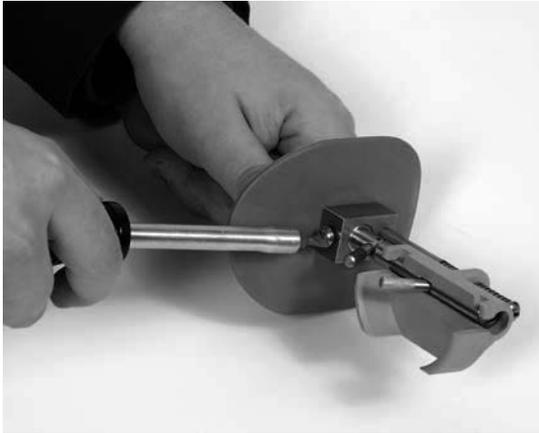
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Sharpening and/or Steeling Rod Adjustment – Straight Blade and Cone Blade Models

Models: 350, 440, 620, 500 and 750

- Loosen the steeling rod screw in the rod mount. Remove the steeling rod shaft from the rod mount and slide it out of the locator.



- To adjust the steeling rod:
 - Remove the cover screw at the right end of the steeling rod shaft.
 - Loosen the set screw inside the right end of the steeling rod shaft using a 3/32" hex wrench.
 - Rotate the steeling rod by hand to expose a new wear surface.
 - Tighten the set screw.
 - Replace the cover screw at the right end of the steeling rod shaft.





Maintenance

Sharpening and/or Steeling Rod Adjustment – Straight Blade and Cone Blade Models

Models: 350, 440, 620, 500 and 750

- To adjust the sharpening rod:
 - Loosen the set screw inside the left end of the steeling rod shaft using a 3/32” hex wrench.
 - Rotate the sharpening rod by hand to expose a new wear surface.
 - Tighten the set screw.



- Slide the steeling rod shaft through the locator and into the rod mount. Tighten the steeling rod screw.

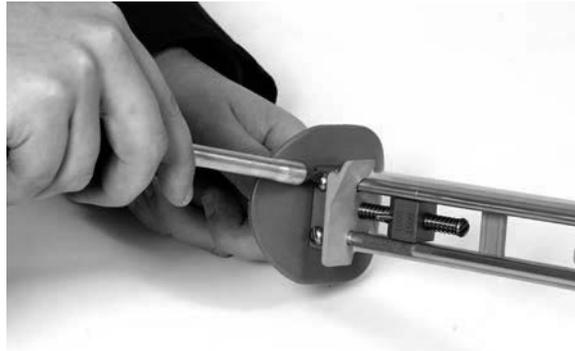




Sharpening and/or Steeling Rod Adjustment – Flat Blade Models

Models: 625, 505, 850, 880-B, 880-S, 1000, 1300, 1400 and 1500

- To adjust the sharpening rod:
 - Loosen the sharpening rod screw on top of the rod mount.
 - Rotate the sharpening rod by hand to expose a new wear surface.
 - Tighten the sharpening rod screw.



- To adjust the steeling rod:
 - Loosen the steeling rod screw on top of the rod mount.
 - Rotate the sharpening rod by hand to expose a new wear surface.
 - Tighten the steeling rod screw.



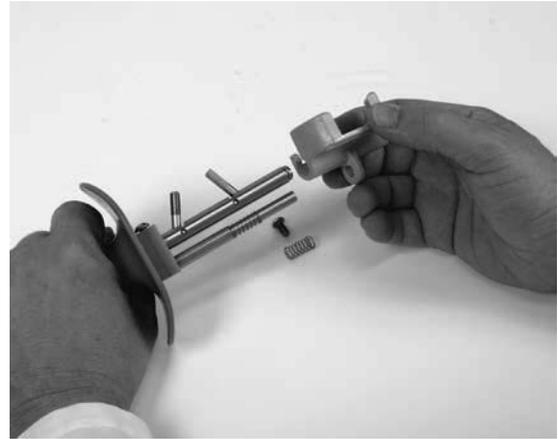
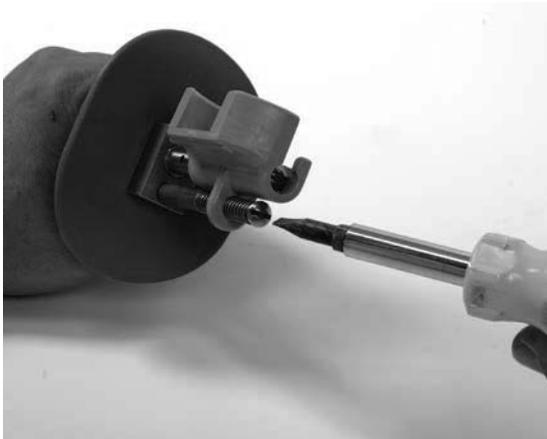


Maintenance

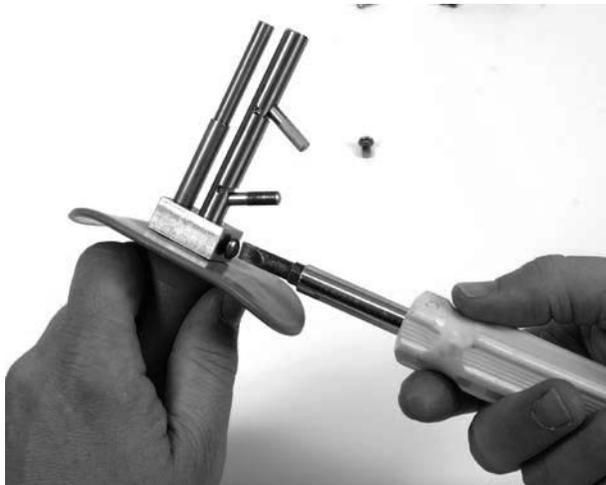
Disassembly – Straight Blade and Cone Blade Models

Models: 350, 440, 620, 500 and 750

- Remove the spring rod screw and slide off the locator and springs.



- Remove the steeling rod screw from the rod mount and remove the steeling rod shaft.

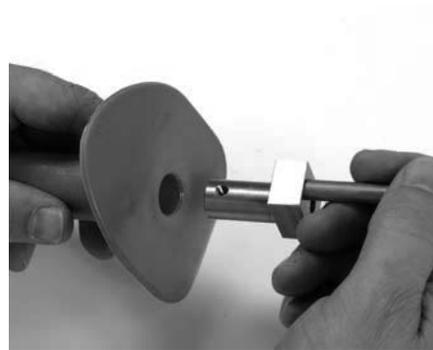




Disassembly - Straight Blade and Cone Blade Models (Continued)

Models: 350, 440, 620, 500 and 750

- Remove the handle screw and pull apart the handle and rod mount.



- To remove the steeling rod:

- Remove the steeling rod screw on the right side of the steeling rod shaft.
- Remove the set screw inside the right end of the steeling rod shaft using a 3/32" hex wrench.
- Press out the spring pin.
- Remove the steeling rod.





Maintenance

Disassembly - Straight Blade and Cone Blade Models (Continued)

Models: 350, 440, 620, 500 and 750

- To remove the sharpening rod:
 - Remove the set screw inside the left end of the steeling rod shaft using a 3/32" hex wrench.
 - Press out the spring pin.
 - Remove the sharpening rod.





Assembly - Straight Blade and Cone Blade Models

Models: 350, 440, 620, 500 and 750

- Install the sharpening rod into the steeling rod shaft.
 - Insert the sharpening rod into the left hole in the steeling rod shaft.
 - Press the spring pin into the spring pin hole, ensuring the ends of the pin do not extend past the outside diameter of the shaft.
 - Install the set screw into the left end of the steeling rod shaft and tighten.



- Install the steeling rod into the steeling rod shaft.
 - Insert the steeling rod into the right hole in the steeling rod shaft.
 - Press the spring pin into the spring pin hole, ensuring the ends of the pin do not extend past the outside diameter of the shaft.
 - Install the set screw into the right end of the steeling rod shaft and tighten.
 - Install the cover screw into the right end of the steeling rod shaft.





Maintenance

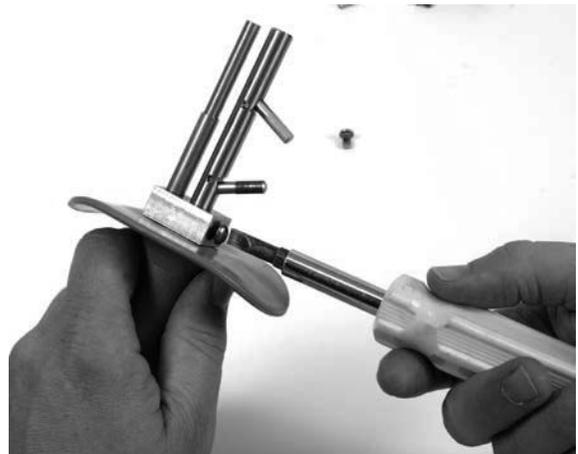
Assembly - Straight Blade and Cone Blade Models (Continued)

Models: 350, 440, 620, 500 and 750

- Install rod mount into handle, aligning holes. Secure with handle screw.



- Install the steeling rod shaft into the rod mount.
 - The wrench flat on the small diameter end should face up and align with the screw hole in the rod mount.
 - Install the steeling rod screw and tighten.

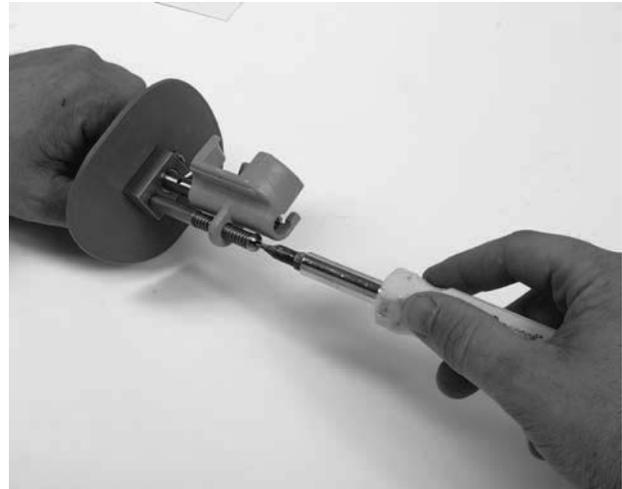




Assembly - Straight Blade and Cone Blade Models (Continued)

Models: 350, 440, 620, 500 and 750

- Install the locator.
 - Slide one spring onto the spring rod.
 - Slide the locator onto the spring and steeling rods.
 - Slide the second spring onto the spring rod.
 - Install the spring rod screw and tighten.



- Ensure the locator moves freely back and forth on the rods.



Maintenance

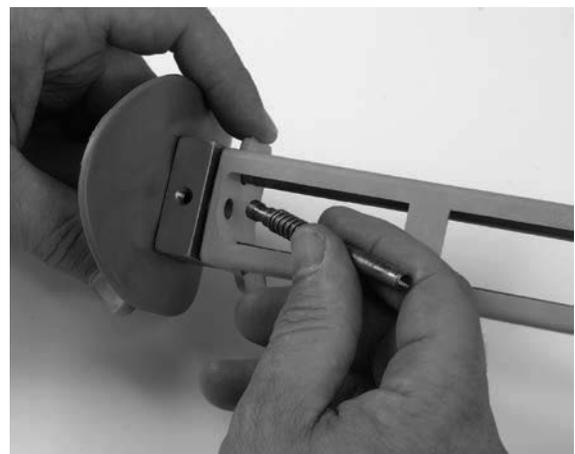
Disassembly – Flat Blade Models

Models: 625, 505, 850, 880-B, 880-S, 1000, 1300, 1400, 1500, 1850 and 1880

- Remove I.D. steel.
 - Remove I.D. steel screw.
 - Remove spring.
 - Slide I.D. steel off of the I.D. steel rod.



- Remove the I.D. steel rod screw. Then remove the I.D. steel rod.

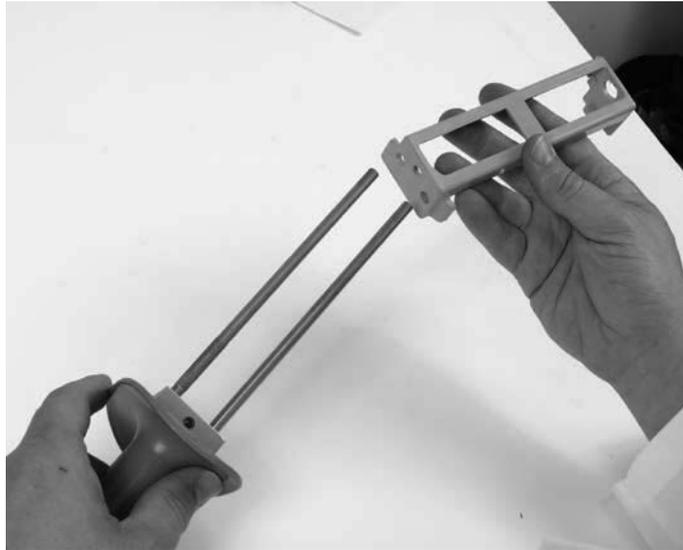




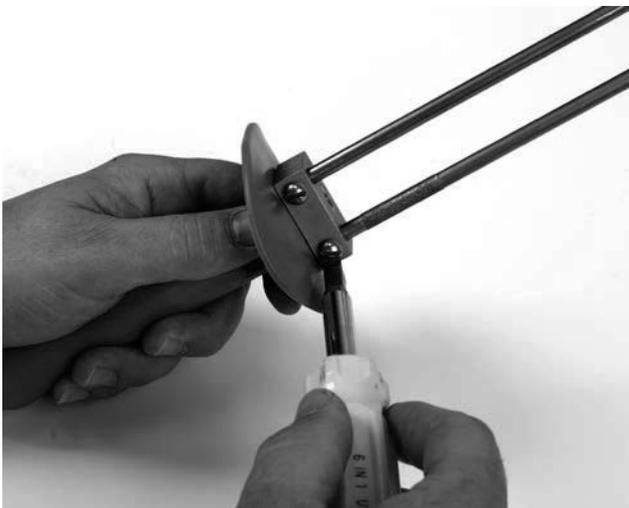
Disassembly – Flat Blade Models (Continued)

Models: 625, 505, 850, 880-B, 880-S, 1000, 1300, 1400, 1500, 1850 and 1880

- Remove I.D. locator.



- To remove the sharpening rod:
 - Loosen the sharpening rod screw.
 - Remove the sharpening rod from the rod mount.





Maintenance

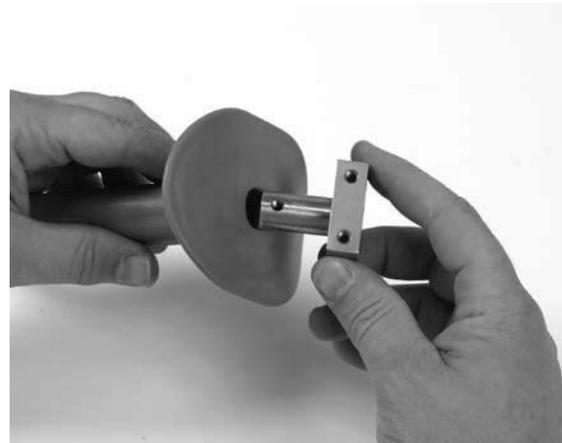
Disassembly – Flat Blade Models (Continued)

Models: 625, 505, 850, 880-B, 880-S, 1000, 1300, 1400, 1500, 1850 and 1880

- To remove the steeling rod:
 - Loosen the steeling rod screw.
 - Remove the steeling rod from the rod mount.



- Remove the handle screw and pull the rod mount out of the handle.

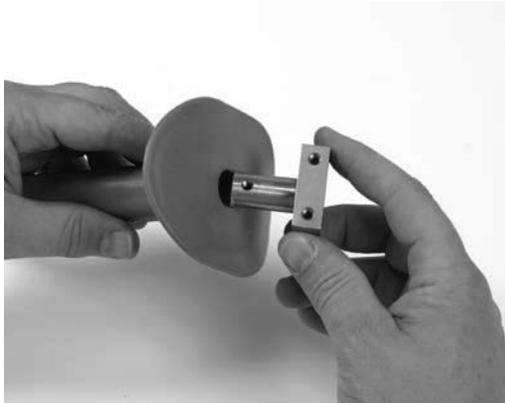




Assembly – Flat Blade Models

Models: 625, 505, 850, 880-B, 880-S, 1000, 1300, 1400, 1500, 1850 and 1880

- Install the rod mount into handle, aligning holes. Secure with handle screw.



- Start the three screws into the rod mount.
- Install the steeling rod into the rod mount. Tighten the steeling rod screw.



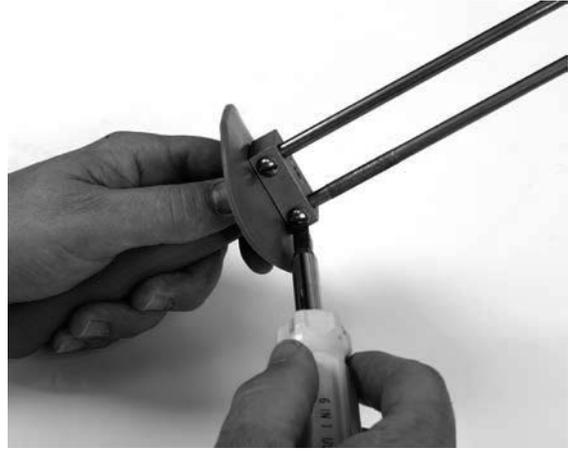


Maintenance

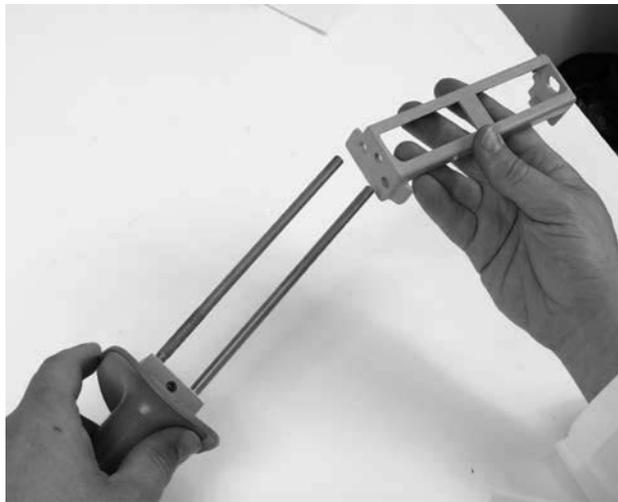
Assembly – Flat Blade Models (Continued)

Models: 625, 505, 850, 880-B, 880-S, 1000, 1300, 1400, 1500, 1850 and 1880

- Install the sharpening rod into the rod mount. Tighten the sharpening rod screw.



- Slide the locator on to the sharpening and steeling rods with the three smallest holes against the rod mount.





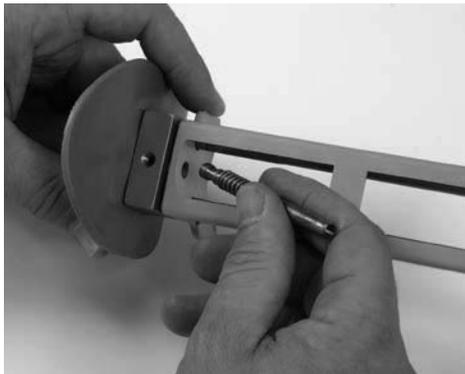
Assembly – Flat Blade Models (Continued)

Models: 625, 505, 850, 880-B, 880-S, 1000, 1300, 1400, 1500, 1850 and 1880

- Slide a spring onto the grooved end of the I.D. steel rod.



- Slide the I.D. steel rod with spring through the locator and into the rod mount. Tighten the I.D. steel rod screw.



- Slide the I.D. steel onto the I.D. steel rod. Slide a spring onto the I.D. steel rod. Install and tighten the I.D. steel screw.





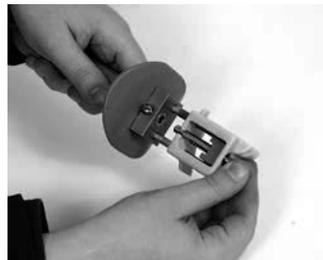
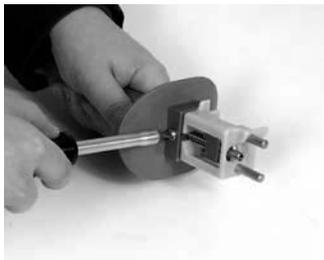
Maintenance

Disassembly – Model 360

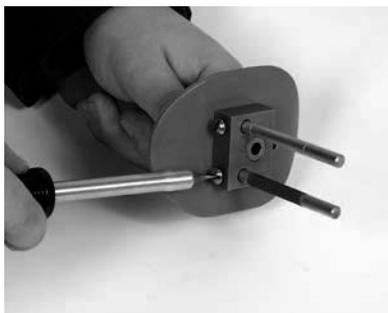
- To remove the I.D. steel:
 - Remove I.D. steel screw
 - Remove spring.



- Remove the spring rod screw, then remove the spring rod, I.D. steel, spring, and locator.



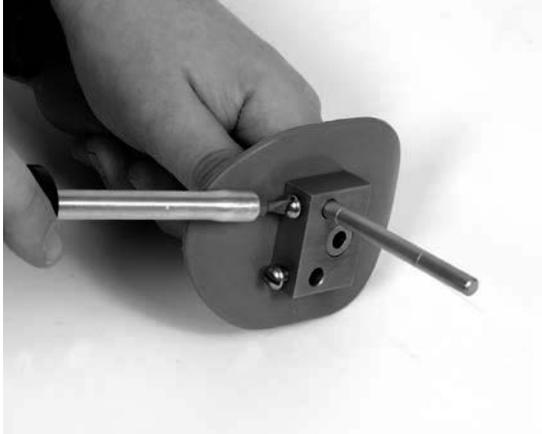
- Separate the spring rod, I.D. steel, spring and locator.
- To remove the sharpening rod:
 - Loosen the sharpening rod screw.
 - Remove the sharpening rod from the rod mount.



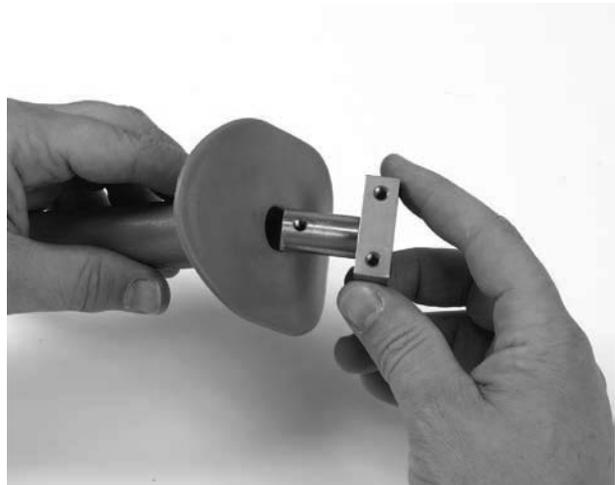


Disassembly – Model 360 (Continued)

- To remove the steeling rod:
 - Loosen the steeling rod screw.
 - Remove the steeling rod from the rod mount.



- Remove the handle screw and pull the rod mount out of the handle.

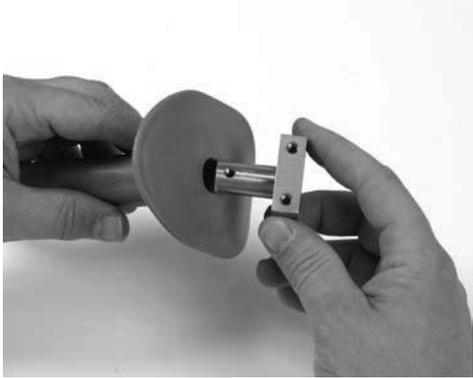




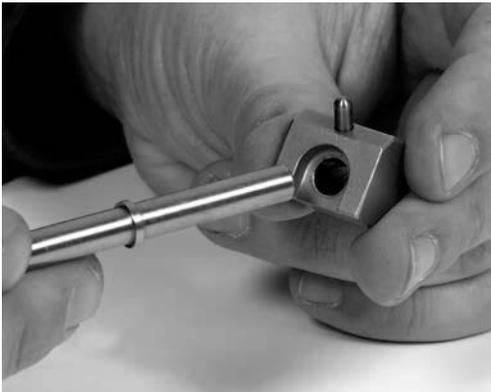
Maintenance

Assembly – Model 360

- Install rod mount into the handle, aligning holes. Secure with the handle screw.



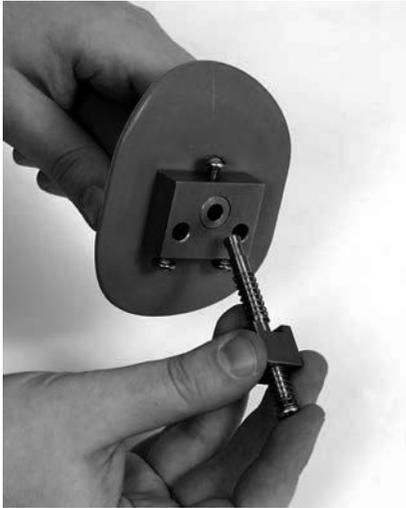
- Preassemble the spring rod, I.D. steel, and springs.
 - Slide the I.D. steel on the spring rod so the notch in the I.D. steel fits over the ridge in the center of the spring rod.
 - Slide a spring on to the spring rod behind the I.D. steel.
 - Start the I.D. steel screw.
 - Slide the second spring over the grooved end of the spring rod.





Assembly – Model 360 (Continued)

- Install the spring rod assembly into the rod mount. Tighten the spring rod screw.



- Tighten the spring I.D. steel screw.

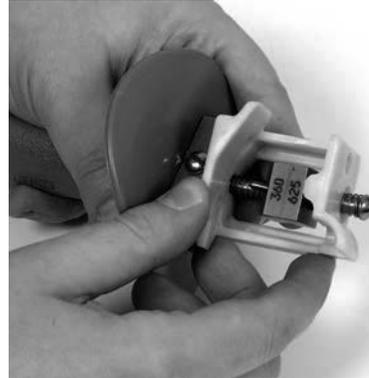
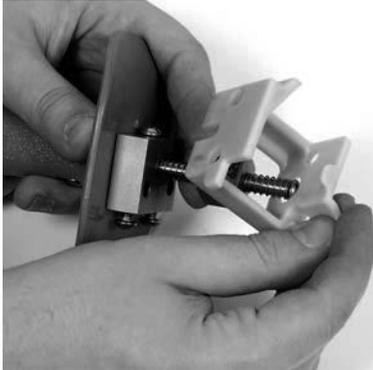




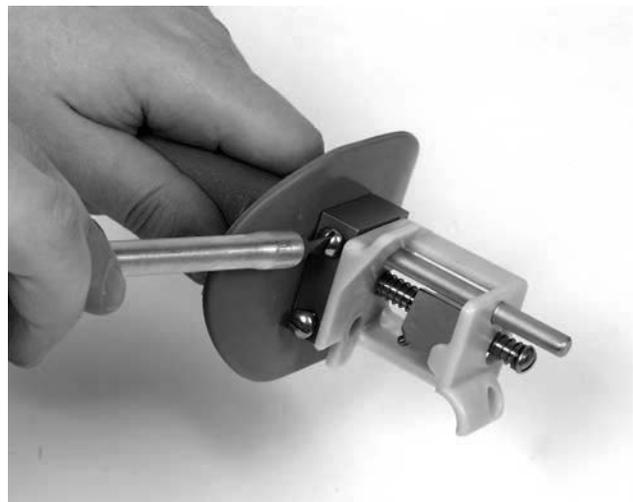
Maintenance

Assembly – Model 360 (Continued)

- Install the locator:
 - Feed the spring rod, screw end first, into the large hole on the right end of the locator.
 - Lower the notch in the left end of the locator over the spring rod. Make sure the spring is on the inside of the locator.



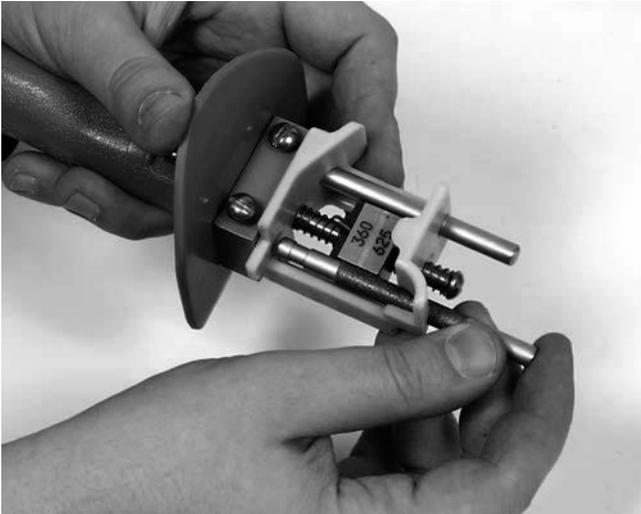
- Install the steeling rod through the holes in the locator and into the rod mount. Make sure the I.D. steel points upwards. Tighten the steeling rod screw.





Assembly – Model 360 (Continued)

- Install the sharpening rod through the holes in the locator and into the rod mount. Make sure the I.D. steel points up. Tighten the sharpening rod screw.



- The locator and I.D. steel should move freely on their rods.



Maintenance

Fault Detection and Correction

PROBLEM	PROBABLE CAUSE	REMEDY
Blade Does Not Get Sharp	Worn sharpening rod	Rotate rods, or replace
	Improper position of trimmer in locator	See Instructions for Operation
	Worn I.D. steel	Replace
	Wrong I.D. steel	Check model number on I.D. steel and replace
	Wrong sharpening rod	Check sharpening rod length and replace
Locator / I.D. Steel Not Moving Freely	Product build-up on parts	Disassemble and clean parts



Section 5

Cleaning

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Daily Cleaning 5-2



Daily Cleaning

Clean the Bettcher® E-Z EDGE daily. For best results, clean the Bettcher® E-Z EDGE with Bettcher® EXTRA Heavy Duty Cleaner, diluted according to the directions on the container. After cleaning, rinse the tool thoroughly with hot water, and dry completely.



Section 6

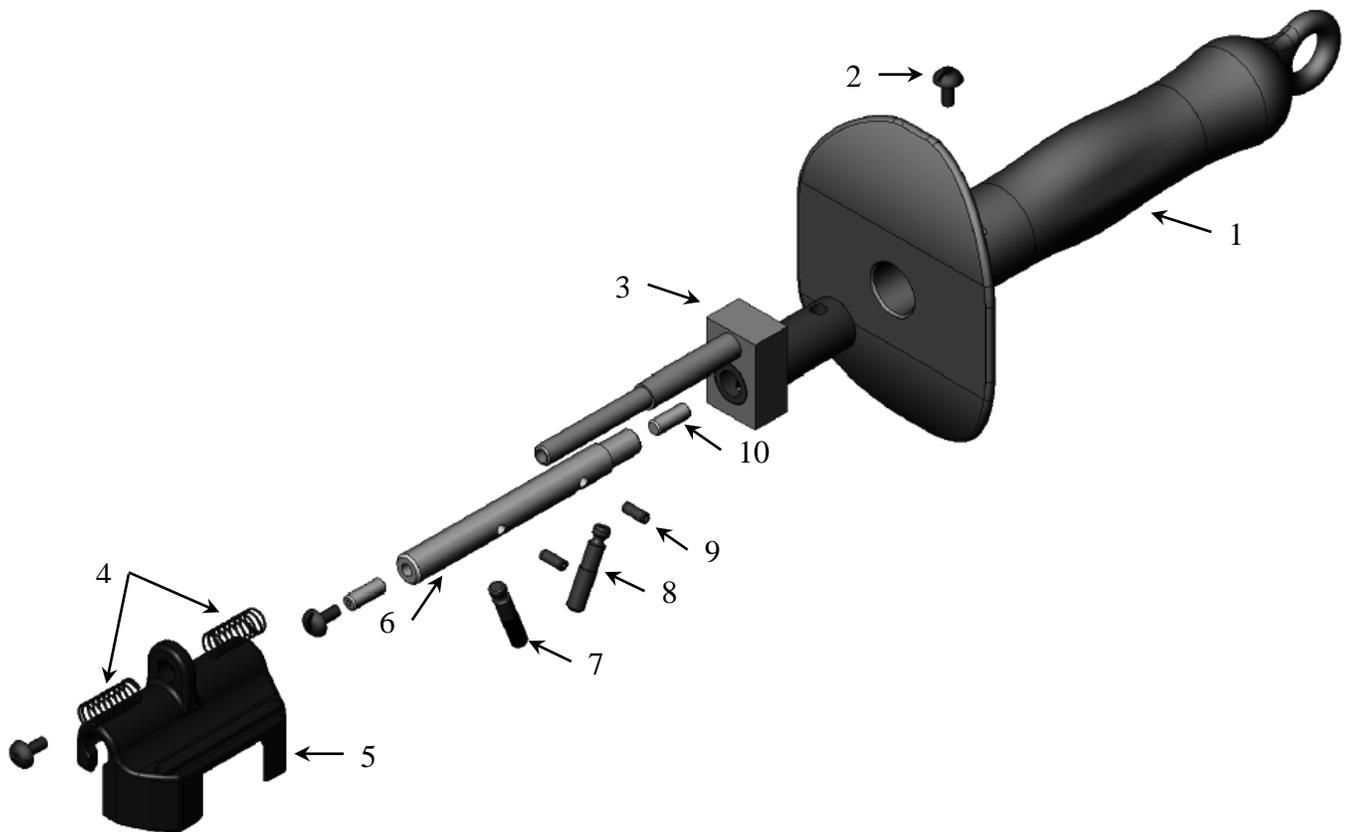
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Straight Blade Models





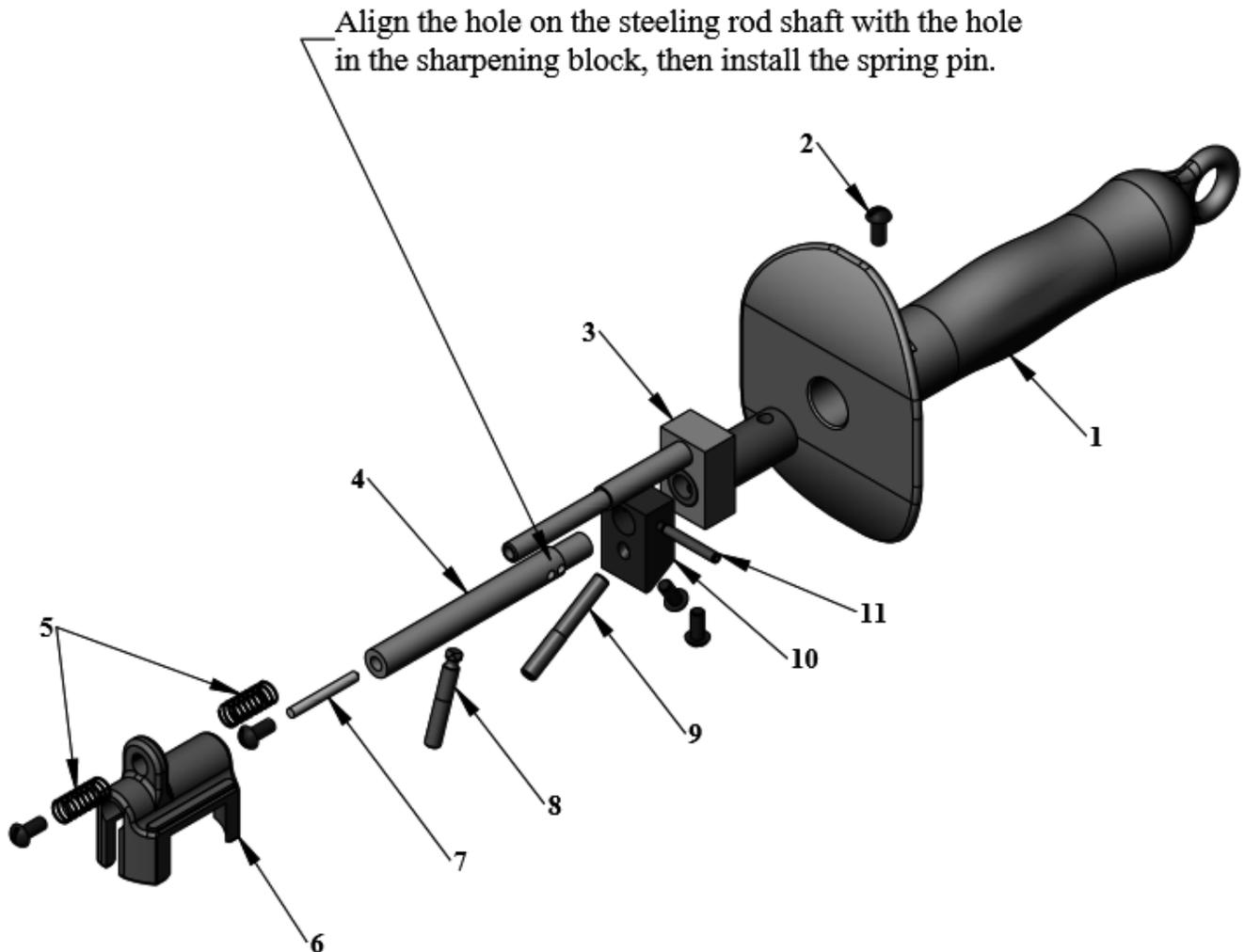
Straight Blade Models

Item	Description	Model 350M2/ Q350	Model 440M2/ Q440	Model 620M2/ Q620	Model 500M2/ Q500	Model 750M2	Model Q750/ X750	Qty.
	Complete Assembly	183905	183906	183892	183907	183908	102988	
1	Handle	183909	183909	183909	183909	183909	183909	1
2	Screw	123236	123236	123236	123236	123236	123236	4
3	Rod Mount Assembly	163119	163119	163119	163119	163119	163119	1
4	Compression Spring	103123	103123	103123	103123	103123	103123	2
5	Locator	183910	183911	183894	183912	183913	102989	1
6	Steeling Rod Mount	163112	163112	163114	163112	163112	163112	1
7	Steeling Rod	163124	163124	163124	163124	163124	173509	1
8	Sharpening Rod	183893	183893	183893	183893	183893	102987	1
9	Spring Pin	122431	122431	122431	122431	122431	122431	2
10	Set Screw	120054	120054	120054	120054	120054	120054	2

Item	Description	Model X350	Model X440	Qty.
	Complete Assembly	107254	107255	
1	Handle	183909	183909	1
2	Screw	123236	123236	4
3	Rod Mount Assembly	163119	163119	1
4	Compression Spring	103123	103123	2
5	Locator	183910	107251	1
6	Steeling Rod Mount	163114	163114	1
7	Steeling Rod	163124	163124	1
8	Sharpening Rod	183893	183893	1
9	Spring Pin	122431	122431	2
10	Set Screw	120054	120054	2



Cone Blade Models





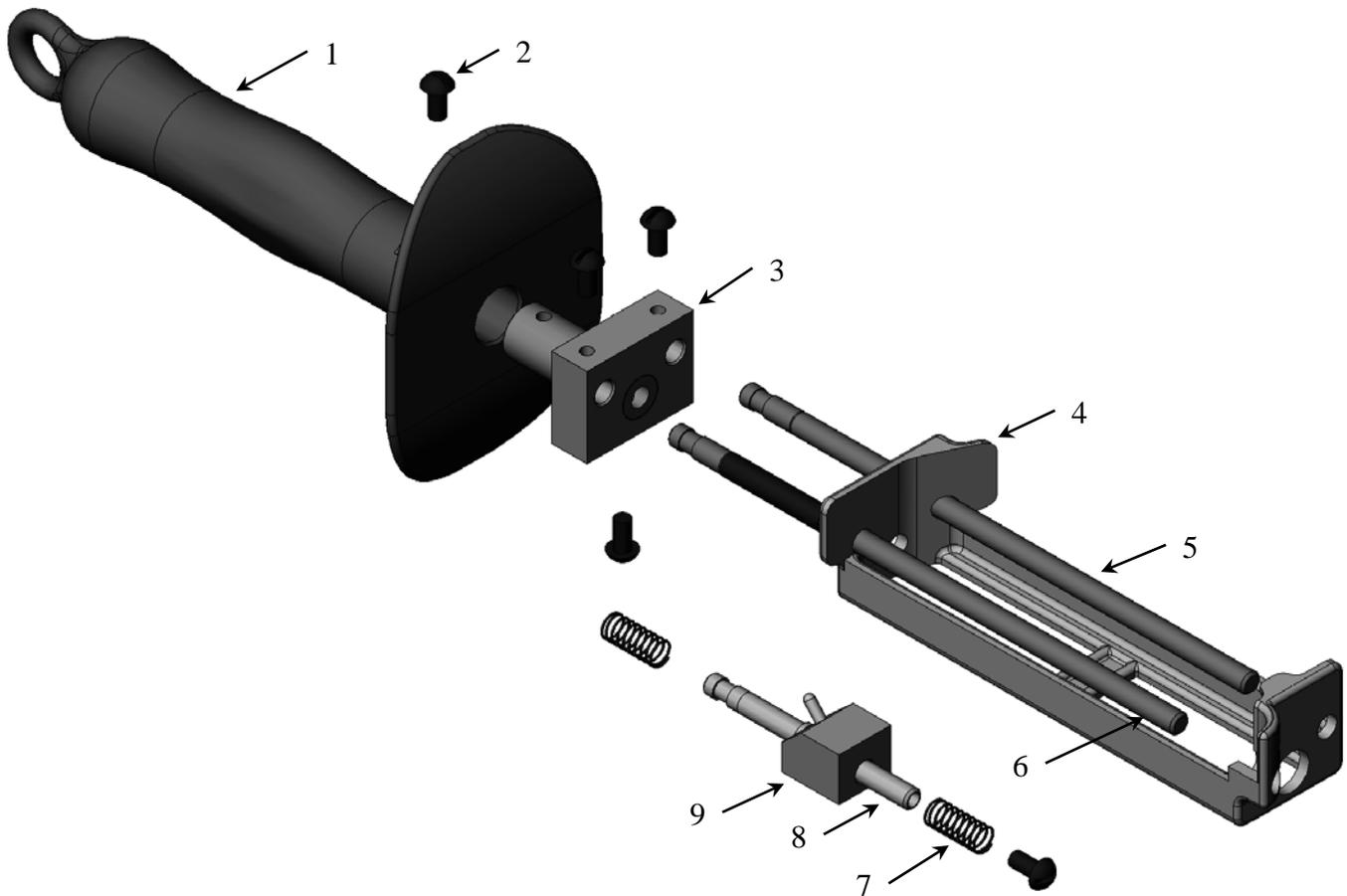
Cone Blade Models

Item	Description	Model 350 Cone Blade	Qty.
	Complete Assembly	185523	
1	Handle	183909	1
2	Screw	123236	5
3	Rod Mount Assembly	163119	1
4	Steeling Rod Mount	173512	1
5	Compression Spring	103123	2
6	Locator	183910	1
7	Ram Pin	173513	1
8	Steeling Rod	185727	1
9	Sharpening Rod	185525	1
10	Sharpening Block	173511	1
11	Spring Pin	120166	1



Flat Blade Models

Model 1300/1400 Shown





Flat Blade Models

Item	Description	Model 360	Model 625	Model 505	Model 850 880B/880S	Model 1850/1880	Qty.
	Complete Assembly	183928	183926	183927	183925	185683	
1	Handle	183909	183909	183909	183909	183909	1
2	Screw	123236	123236	123236	123236	123236	5
3	Rod Mount Assembly	163109	163109	163109	163109	163109	1
4	Locator	184975	183932	183933	183931	183931	1
5	Non-Sharpening Rod	173555	173553	173554	173552	173552	1
6	Sharpening Rod	173551	173549	173550	173548	173548	1
7	Compression Spring	103123	103123	103123	103123	103123	2
8	Spring Rod	163108	163108	163107	163107	163107	1
9	I.D. Steeling Assembly	163085	163085	163084	163084	163082	1

Item	Description	Model 1000/1500	Model 1300/1400 (Shown)	Qty.
	Complete Assembly	173322	173298	
1	Handle	183909	183909	1
2	Screw	123236	123236	5
3	Rod Mount Assembly	163109	163109	1
4	Locator	183930	183930	1
5	Non-Sharpening Rod	173305	173305	1
6	Sharpening Rod	173250	173250	1
7	Compression Spring	103123	103123	2
8	Spring Rod	163107	163107	1
9	I.D. Steeling Assembly	163082	163083	1



Cleaning Solutions

Part Number	Description
184331	Case of EXTRA Cleaner (four 1 gallon jugs)
184332	EXTRA Cleaner (1 gallon jug)

Optional Equipment Available

Part Number	Description
122740	Tool Positioner Reel



Section 7

Contact and Document Information

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Contact Addresses and Phone

For additional information, technical support and spare parts, contact your Regional Manager, Distributor, or Bettcher Representative:

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Visit our website at www.bettcher.com



Document Identification

Copies of this Operation Instruction may be ordered by quoting the Document ID as listed below:

Document ID:	Manual #173297
Document Description:	Operating Instructions and Parts List For Bettcher® E-Z EDGE sharpener
Issued:	June 15, 2018

Software and Duplication

For more information, contact your Regional Manager, or:

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