MiTek®
Component Automation

# Service Bulletin

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| **Machinery Affected:** | **BLADE™ Saw** |
| **Document:** | **SB202-N rev. C** |
| **Title:** | **Replacing the Saw Blade** |
| **Applies To:** | **All BLADE Saws, as of Prototype and First Build** |
| **Distribution:** | **Customers, Upon Order of Saw Blade** |

| | **DANGER** |
|---|---|
|  | **This symbol indicates a change to this document as of 2021 that must be followed to prevent a dangerous situation or expensive damage to your machine.** |



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|---|---|
| Item # and Rev. | SB202-N rev. C |
| Date Created | 6 June 2017 |
| Created By | R. Tucker |
| Approved by | T. Turner |
| | |
| Revision Date | 26 Aug. 2021 |
| Revised By | R. Tucker |
| Approved By | M. Kanjee |
| | |
| Applicability | 89060-501, all models |
| Effectivity | successor to SB202 |

# Purpose and Scope

When replacing a dull saw blade, follow this procedure to ensure that the blade is secure and can safely operate. Resharpening specs are also provided for future use.

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| ! | **⚠ DANGER**<br>**This symbol indicates a change to this document as of 2021 that must be followed to prevent a dangerous situation or expensive damage to your machine.** |

# Overview

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|  | **⚠ WARNING**<br>**USE NEW, UNUSED SCREWS AS DESCRIBED HERE TO PREVENT THE SAW BLADE FROM DETACHING!**<br>The screws supplied in this kit changed in July 2021 to 1-inch long screws. New saw blade hubs have a new design requiring these 1” screws.<br>**NOTE: 1-piece hubs (standard hub prior to July 2021) can use the 5/8” screws in previous saw blade kits or 1” screws supplied here. All hubs in the field are being replaced with the new 2-piece hub in late 2021. If you have the 2-piece hub, you MUST use the 1” screws and discard the 5/8” screws. If uncertain which hub you have, always use the 1” screws!** |

!

The parts included in this kit are shown in Table 1-1. Please ensure all parts are present before starting this procedure.

**Table 1-1: Parts in SB202KIT-N**

| Qty. | Part Description | Part # |
|---|---|---|
| 1 | Saw blade, 17” | 811605 |
| 1 box | 1” long flat-head screws, 50 screws per box | 325186 |
| 1 | Service Bulletin 202-N document | SB202-N |

Before beginning the procedure, gather the supplies listed here:

- Torque wrench and T30 *Torx*™ driver
  (also called star or hexalobular internal shaped driver)

If you have any questions, call MiTek Component Automation Division Customer Service at 800-523-3380.

# Procedure

## Electrical Lockout/Tagout Procedures and Preparation

| | ⚠ WARNING |
|---|---|
|  | **ELECTROCUTION HAZARD!**<br>**Verify that all power to the machine has been turned off and follow approved lockout/tagout safety procedures before performing any maintenance.**<br>**All electrical work must performed by a qualified electrician.**<br>**If it is absolutely necessary to troubleshoot an energized machine, follow NFPA 70E for proper procedures and personal protective equipment.** |

Before performing maintenance on any machine with electrical power, lockout/tagout the machine properly. When working on a machine outside of the machine's main electrical enclosure, not including work on the electrical transmission line to the machine, follow your company's approved lockout/tagout procedures which should include, but are not limited to the steps here.

1. Before disrupting power, position the saw blade in a convenient position for accessibility.

   It is recommended to rotate the saw head so the blade is facing flat, toward the ceiling, and to raise the elevation to chest height.

2. Press an E-stop button.

3. After blade motion has stopped, press the Request to Unlock button next to the saw chamber door, and open the door.

4. Turn the disconnect switch handle on the machine's main electrical enclosure to the "off" position.

| | ⚠ WARNING |
|---|---|
|  | **ELECTROCUTION HAZARD.**<br>**When the disconnect switch is off, there is still live power within the enclosure. Always turn off power at the building's power source to the equipment before opening this electrical enclosure!** |

5. Attach a lock and tag that meets OSHA requirements for lockout/tagout.

## Pneumatic System Lockout/Tagout Procedure

| | ⚠ WARNING |
|---|---|
|   | **MOVING PARTS CAN CRUSH AND CUT.**<br>**Always verify that power to the machine has been turned off and follow approved lockout/tagout procedures.**<br>**Turn off the pneumatic shutoff valve before performing any maintenance on the equipment.** |

## Replacing the Blade

| | ⚠ CAUTION |
|---|---|
|   | **CUT HAZARD.**<br>**Saw blades are sharp. Wear gloves and eye protection when handling blade.** |

1. Gather the following supplies:

   a) New or sharpened saw blade.

   b) Correct Torque wrench and T30 Torx™ driver
   (also called star or hexalobular internal shaped driver)

   c) Correct screws (6):

   - Each new saw blade kit comes with a box of 50 screws. Keep the extra screws to reinstall a used blade after sharpening.

| | ⚠ WARNING |
|---|---|
|  | **USE NEW, UNUSED SCREWS AS DESCRIBED HERE TO PREVENT THE SAW BLADE FROM DETACHING!**<br><br>The screws supplied in this kit changed in July 2021 to 1-inch long screws. New saw blade hubs have a new design requiring these 1” screws.<br><br>**NOTE: 1-piece hubs (standard hub prior to July 2021) can use the 5/8” screws in previous saw blade kits or 1” screws supplied here. All hubs in the field are being replaced with the new 2-piece hub in late 2021. If you have the 2-piece hub, you MUST use the 1” screws and discard the 5/8” screws. If uncertain which hub you have, always use the 1” screws!** |

2. After ensuring the power is locked out, loosen and remove the screws labeled in Figure  on page 7. Discard the screws.

3. Remove the saw blade and place in a safe place for sharpening or re-tipping.

4. Wiggle the hub to ensure it is still tight. Do not re-torque the hub screws unless you feel wiggle. If you feel the hub wiggle, refer to service bulletin 246 and page 7 to re-torque the hub screws.

5. Prepare the surfaces:

| | ⚠ WARNING |
|---|---|
|  | **Mounting surfaces and hardware must be clean and dry when installing saw blade.**<br><br>**Dust, dirt, and lubrication may cause the blade to come loose, causing injury or death.** |

   a) Blow off dust from the hub and the bolt threads. Remove all pitch and debris from threads.

   b) Wipe down the mounting surface on the new saw blade and the hub. Use an emery cloth, if necessary, to remove pitch.

   c) Ensure all parts are clean, dry, and free of lubricants.

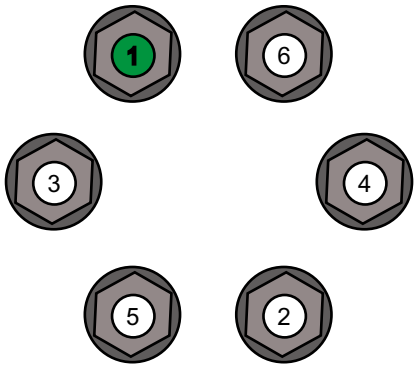
   d) If using a used saw blade, measure its diameter from outside edge of tooth to outside edge of tooth. If the diameter is less than 16-5/8”, discard it.

6. Place the new/resharpened saw blade so the holes align with the holes in the hub and the teeth hook points downward when cutting a straight cut.

| | ⚠ WARNING |
|---|---|
|  | **Use ONLY the screws described in step 1.**<br>**Use NEW screws every time the blade is replaced.**<br>**Do NOT use thread adhesive.**<br>**TORQUE to specifications given in Figure !**<br>**Ensure the screws are fully embedded and flush against the saw blade surface.** |

7. Using new screws obtained from MiTek with your last new saw blade purchase, install all 6 screws.
   - Use the driver and screws described in step 1.
   - Do NOT use thread adhesive.
   - Hand tighten all 6 screws in the order shown in Figure 1.
   - Using a torque wrench, tighten the screws in the order shown in Figure 1 until they all reach the recommended torque shown in Figure  on page 7.

**Figure 1: Tighten Bolts in This Pattern**




Always calibrate your torque wrench prior to use.

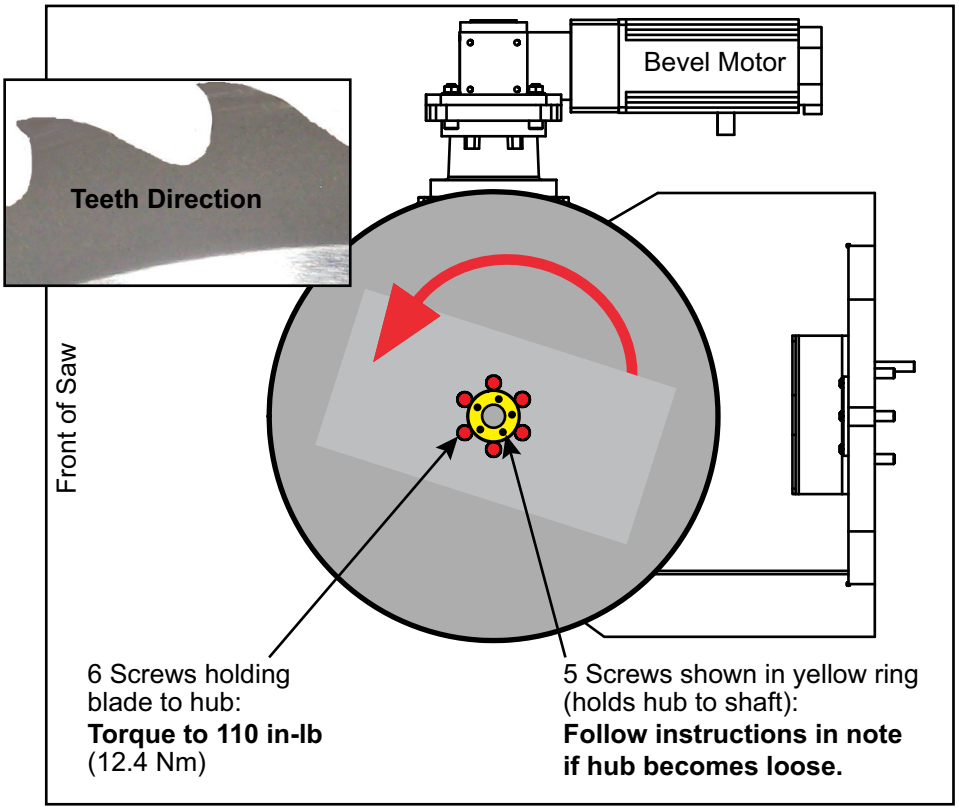
8. Inspect the screws.

   If the screw head surface extend above the surface of the blade OR if you notice the screws are bottoming out on the hub, preventing them from screwing all the way in, replace the hub by ordering SB246KIT.

9. Remove the lockout/tagout device and start the saw blade rotation to observe its motion. It should not have any wobble or vibration when rotating.

Check the saw blade weekly for the following and replace or repair when needed:
- Cracks, warping, missing or dull teeth, etc.
- Observe any wobble or vibration during rotation
- Check that the bolts holding the blade to the hub are secure.

**Figure 2: Torque Specs for Saw Blade and 2-Piece Hub**
***(View from side of saw, with blade at 90 degrees.)***




**TORQUE SPECS!**

TO CHECK THE HUB BUSHING TORQUE **AFTER** INSTALLATION (between saw blade changes):

For 2-piece hubs (hubs installed after July 2021)

It is not necessary to re-torque the hub bushing bolts after initial installation unless the hub itself feels loose. If you feel it's necessary to check the torque on the hub bolts, only set the torque wrench to 156 in-lbs. If the bolts turn at 156 in-lbs, refer to SB246 to properly re-torque the hub bushing bolts.

If the bolts do not turn at 156 in-lbs, no further action is needed.

For 1-piece hubs (hubs installed prior to July 2021)

Contact customer support for SB207.

# Specs for Sharpening the Saw Blade

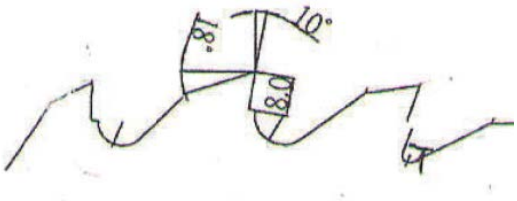
Saw blades can be sharpened to significantly extend their life. They must be sharpened by a reputable blade sharpener that is familiar with carbide tips. It is important to meet the specifications etched into each saw blade. If any specification is not met, it can cause the saw blade to cut inefficiently, inaccurately, and/or rotate out of balance. The specifications are further defined in Table 2.

**Table 2: Saw Blade Specifications**

| Spec Description | Dimension | |
|---|---|---|
| Tip-to-tip diameter | 425 mm min.<br>432 mm max. | (16.75" min.)<br>(17" max.) |
| Kerf (blade thickness) | 4.8 mm | (.189”) |
| Z= qty of teeth | 40 | |
| Ø = diameter of center hole | 50 mm | |
| SK = keyways | 0 | |
| Hook | 10º | |
| Face angle | 0º | |
| Top angle | 15º | |
| Angle left-to-right<br>(or right-to-left) of ATB* | 10º | |
| RPM max | 4500 rpm | |
| Model # of saw blade | as shown on saw blade | |
| ATB | indicates an alternating top bevel | |
| Serial # of saw blade | as shown on saw blade | |

* ATB = Alternating Top Bevel

**Figure 3: Saw Blade Tips Diagram**




**END OF SERVICE BULLETIN**