Cordless Ultra-Lok® Tool



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Warranty

Refer to website for warranty information: uespromura.com.au/document-support/

NOTE: Any performance data published herein is based on laboratory tests, which cannot duplicate conditions that may be encountered in field installations. Such conditions may vary results substantially from those shown (such as abuse in handling and installation, failure to follow recommended handling and installation practices, abnormal environmental conditions, disregard of operating instructions for BAND-IT tools or non-recommended combinations of BAND-IT products). BAND-IT cannot be responsible for performance characteristics from such variables.

Safety Guidelines

WARNING:

Always wear safety glasses when operating this tool and keep both hands and clothing away from clamp being tensioned. Squeezing force can reach as high as 17.8 kN (US short-ton basis). Never attempt to clamp objects which can shatter or **otherwise cause bodily harm. Tensioning the clamp can be stopped immediately by releasing the trigger. Detailed instructions are in this manual and the operator is advised to read it and become familiar with operating the tool.**

IMPORTANT FOR HOSE APPLICATIONS:

- **When clamping a hose end, remember that a tighter clamp keeps the fitting more secure, but excess tension can damage the hose. Fitting stem must have prominent barbs for proper retention inside the hose, but must not be sharp to prevent cutting into the hose. Hose, fitting, and clamp must be compatible with each other and the environment used in. If in doubt, consult the hose or fitting manufacturer or call BAND-IT.**

- Improperly tightened clamps may result in dangerous hose assemblies, which could cause injuries or property damage.

- Abuse or use of a hose outside the manufacturers recommended conditions may cause it to quickly deteriorate and become a safety hazard. This could result in serious injury or property damage. Inspect and test hose assemblies frequently.

Clamping objects other than hose requires similar precautions.

Use only with BAND-IT 19.05 mm and 12.7 mm Ultra-Lok Free-End and Preformed Clamps

Use of Alternate Drills

CAUTION!

This tool is designed to work solely mounted to the Metabo BS 18 LTX series cordless drill. Use of any other drills in place of these Metabo BS 18 LTX drills may result in unsatisfactory performance, hazards to the operator and/or the tool, or unsafe clamps. Disregard of this caution voids the warranty of the tool and releases BAND-IT of any and all liabilities arising from such misuses.

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1. Read safety instructions and operator's manual for the Metabo BS 18 LTX cordless Drill. Check to make sure drill is properly set up for use with Band-It Ultra-Lok® tool as follows:
   ---- Drill spindle has a Clutch Assembly (Band-It # UL4001)
   ---- See page 5 for recommended Drill speed and torque settings.

2. Charge Drill Battery according to the operator's manual.

3. To mount the Drill onto the Band-It Ultra-Lok® Tool: First, using the two #10-32 x 9.525 mm screws (M06187), tighten the Tool Body Adapter (M06288) on the Tension Tool (UL0001) with 2.26-3.39 N m Place the Adapter Collar (M08388) over the Tool Body Adapter. Orient the Drill Clutch Pin (M07187) horizontally (see p. 4 Figure 2). Carefully place the Tool Body Adapter over the Drill Torque Dial. If there is any additional resistance, gently rotate the Tension Tool until the Tension Screw engages with the Drill Clutch (M31789) (see p. 4 Figure 3), and rotate Tension Tool to the desired orientation. Position Tool Body Adapter to butt-up against the shoulder of the drill. Slide the Adapter Collar against this shoulder and fasten to 4.52-6.78 N m

4. This tool was designed for, and can only be used with BAND-IT 12.7 mm and 19.05 mm wide Ultra-Lok® clamps. Do not attempt to use on any other type of clamp style. Only use 12.7 mm wide clamps when the optional 12.7 mm Shear Plate (BAND-IT # M09387) has been installed in the head in place of the 19.05 mm Shear Plate. See page 14 for 12.7 mm blade change procedure.

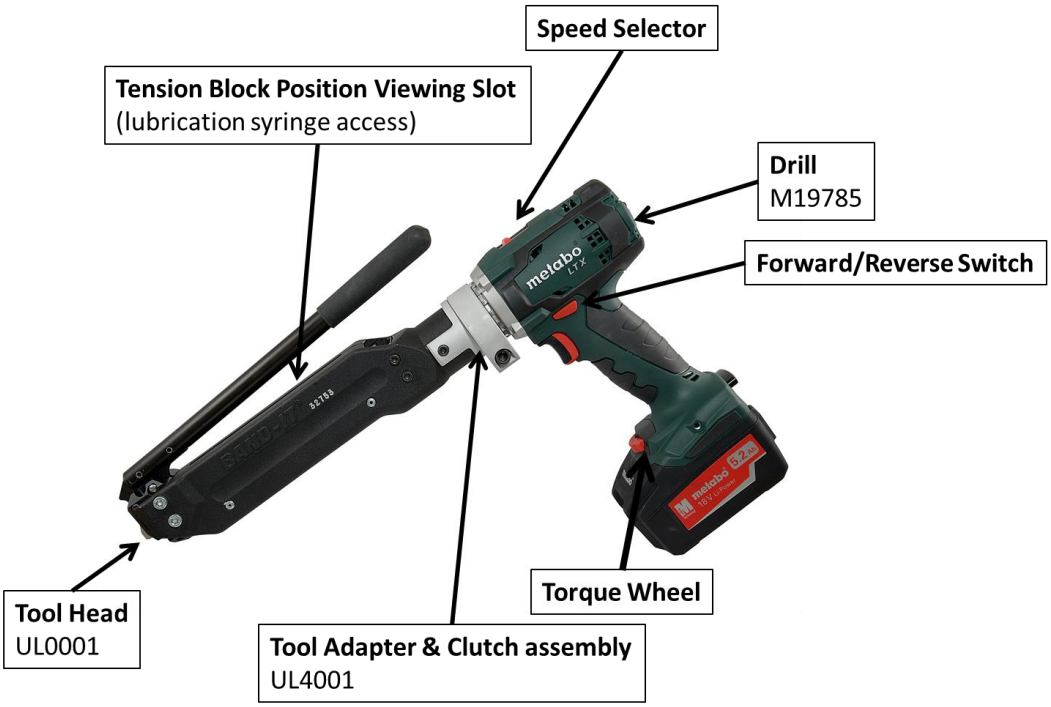
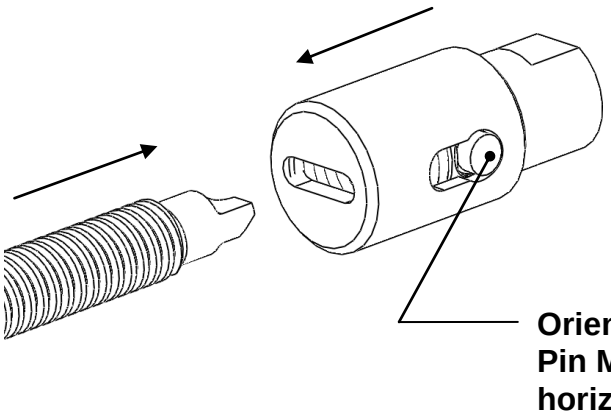


Figure 1

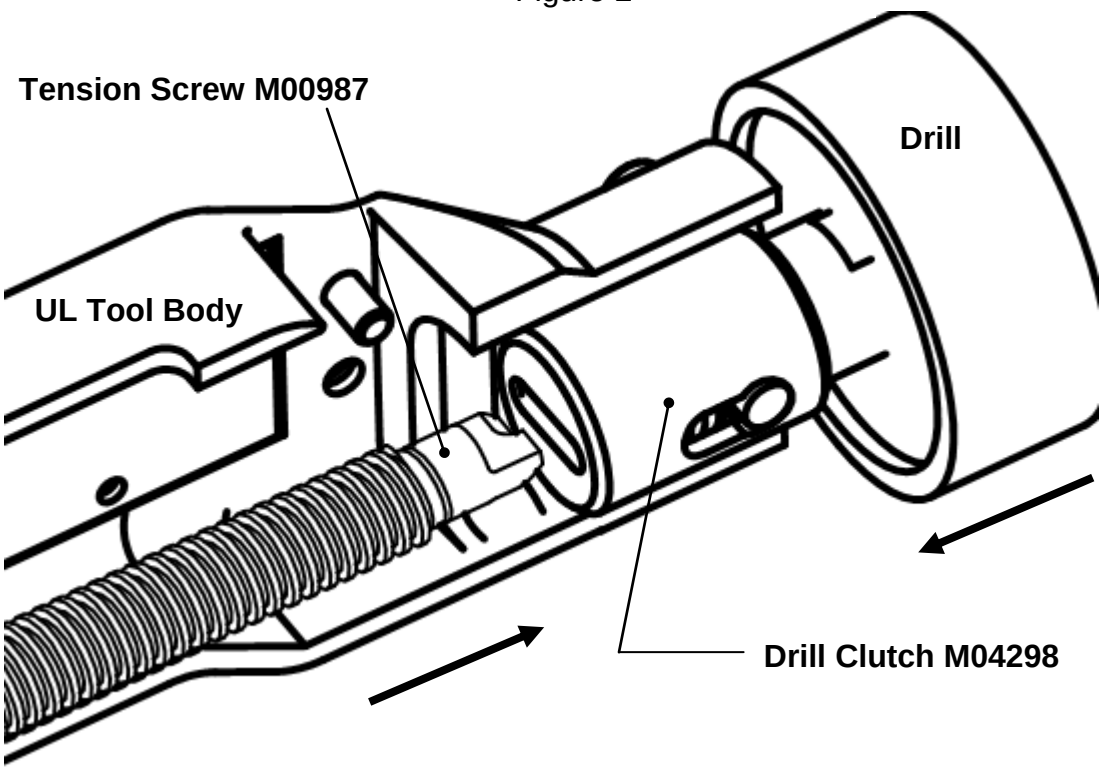
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NOTE: Alignment is critical for proper tool function.

Figure 2



Note: Tool Body Adapter and Adapter Collar are hidden for clarity.

Figure 3

Align the end of the Tension Screw with the slot in the end of the Drill Clutch during assembly, as shown above.

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Recommended Drill Torque Dial Settings:

Drill Model	Metabo BS18 LTX			
Clamp Size	12.7 mm		19.05 mm	
	Speed	Clutch	Speed	Clutch
Single Wrap	1	5	1	6
Double Wrap	1	6	1	7
*Preformed	1	6	1	7

Band-It recommends hearing protection if this setting is used for an extended time.

NOTE: *These torque settings are suggested settings only; individual tools should be adjusted for the clamping application. Inspect lock per instructions on page 9-11.*

Important: Changing speed and clutch settings will alter tension output. Drill Trigger should be depressed fully by the operator to attain correct, and consistent, tension when installing clamps. Tension output may vary from tool to tool, at the same setting, depending on condition and wear of internal components.

Caution: Improperly tightened clamps may result in dangerous assemblies, which could cause injuries or property damage.

Using correctly sized clamps (diameter) will, in most cases, eliminate the need to pull on clamp tail more than once. Tension Block moves approximately 127 mm. On occasion, if needed, large size clamps can be installed by taking several bites (clamp tail feeds out through back of tool). Position of Tension Block, containing gripper, can be monitored through viewing slot just under cut-off handle. The tool features a built-in disengaging mechanism to prevent tension screw from jamming up. At the end of the Tension Block travel the safety clutch will engage and the user will hear a ratcheting sound. Excessive use of this feature will wear the Drill Clutch mechanism and/or Tension Screw out prematurely.

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Notes:

Apply Item 31 (Super Lube) to:
Item 4 (Cut-off Cam)
Item 3 (Cutter Knife) at contact point with item 1 (Tool Head)
Item 26 (Spring) before installation

Apply Item 32 (Grease) to:
Item 7 (Tension Screw) threads and grooved end
Item 2 (Cutter Blade) counter-bore only, after item 14 (Bearing Tip) has been installed.

Tighten the following:
Item 23 (#10-32 Screws) to 6.78-7.91 N m
Item 22 (1/4-28 Screws) to 10.17-12.43 N m

Adjust Item 24 (Plunger) for positive detent action when item 6 (Handle) is actuated.

* Permatex P/N: 82325 or Equivalent

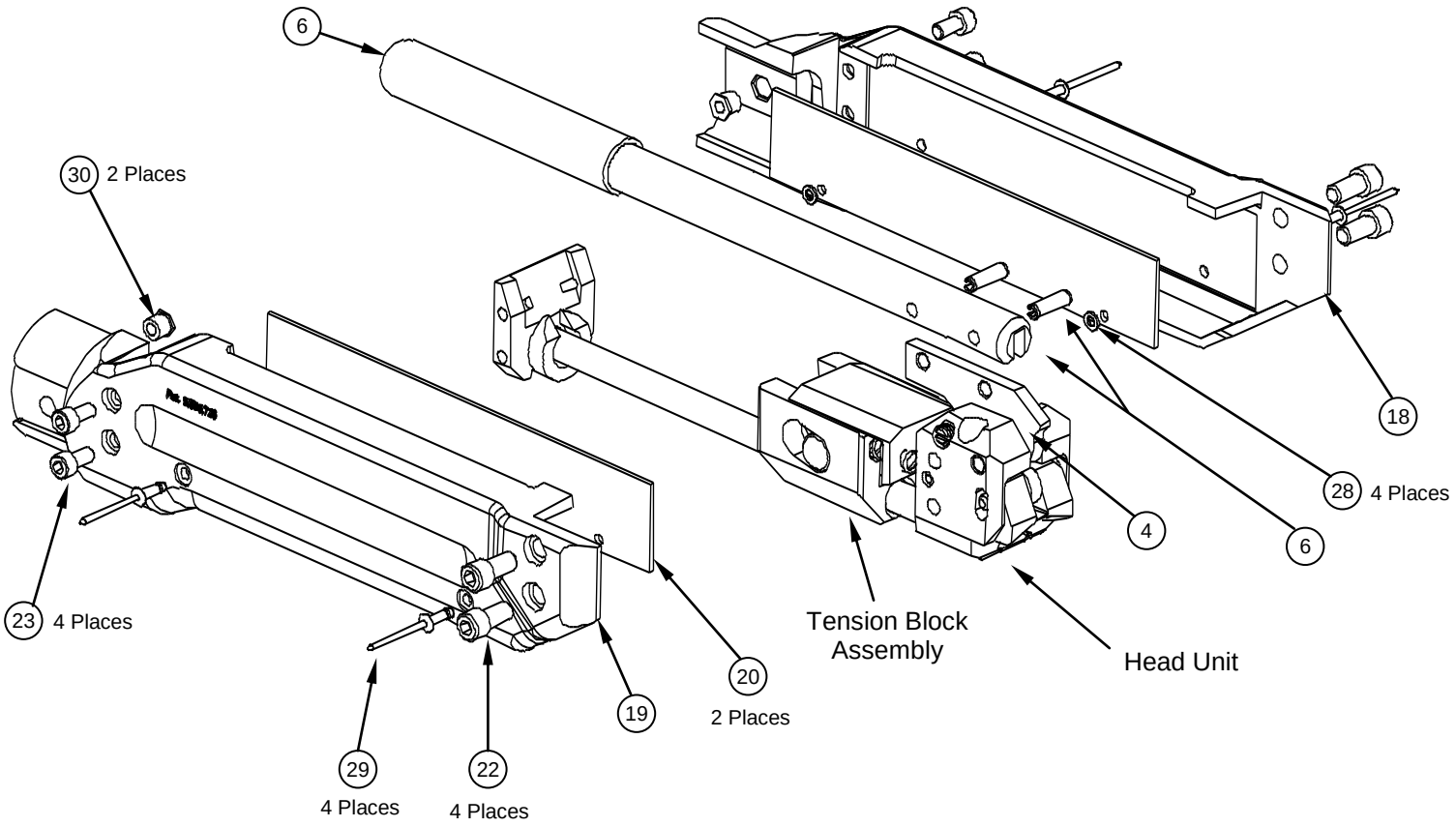
Item	Part Number	Qty	Description
1	M00587	1	Tool Head, Fin. UL
2	M09787	1	Cutter Blade, UL
3	M08687	1	Cutter Knife, UL
4	M08987	1	Cam, Cut-off, UL
5	M09087	1	Tension Block, Mach., UL
6	UL1219	1	Handle Assembly: Includes Handle, Handle Grip, and Pins
7	M00987	1	Tension Screw, Fin.
8	M08887	1	Gripper, UL
9	M01787	1	Plate, Back, Cast/Fin.
10	M09187	1	Gripper Guide, UL
11	M02387	1	Plate, Release, cast/fin.
12	M00287	1	Roller, Cut-off, Fin.
13	M01388	2	Pin, dia 4.7498 x 38.1 mm long, Fin.
14	M05387	1	Bearing Tip, Fin.
15	M06587	1	Ball,6.35 mm Diameter
16	M02287	1	Tip, Load Bearing, Fin.
17	M04387	1	Tripper Bracket, Cast/Fin.
18	M07387	1	Body, Left, Finished, UL
19	M07487	1	Body, Right, Finished, UL
20	M07587	2	Wear Plate, Fin.
21	M05787	2	Screw, Socket Head Cap, ¼ X 25.4 mm
22	J67287	4	Screw, Socket Head Cap, ¼ X 12.7 mm
23	M06187	6	Screw, Socket Head Cap, #10-32 X 9.525 mm
24	M02487	2	Screw, Spring Plunger, ¼-20
25	A33887	1	Spring, comp., 4.572 x 20.6502 mm long
26	A53587	2	Spring, comp., 7.62 x 25.4 mm long
27	M01487	1	Dowel pin, dia 6.35 x 38.1 mm long
28	M08187	4	Washer, ID 3.2512, OD 6.0452 mm
29	M08087	4	Blind rivet, 3.175 x 8.3312 mm long
30	M07987	2	Threaded Insert, #10-32
31	I16387*	-	Lubricant, Super Lube w/ Teflon
32	C23199	-	Lubricant, Moly, Syringe
33	M09887	1	Shear Plate,19.05 mm, UL
34	M09387	1	Shear Plate, UL,12.7 mm (Optional)
35	UL4001	1	Adapter and Clutch Assembly

Tool Accessories:

UL4199 – UL Safety Strap: 6.804 kg capacity tool lanyard with single stainless carabineer.
OSHA: 192.45 (h)(1) – Falling object protection

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See page 6 for parts list

Figure 4

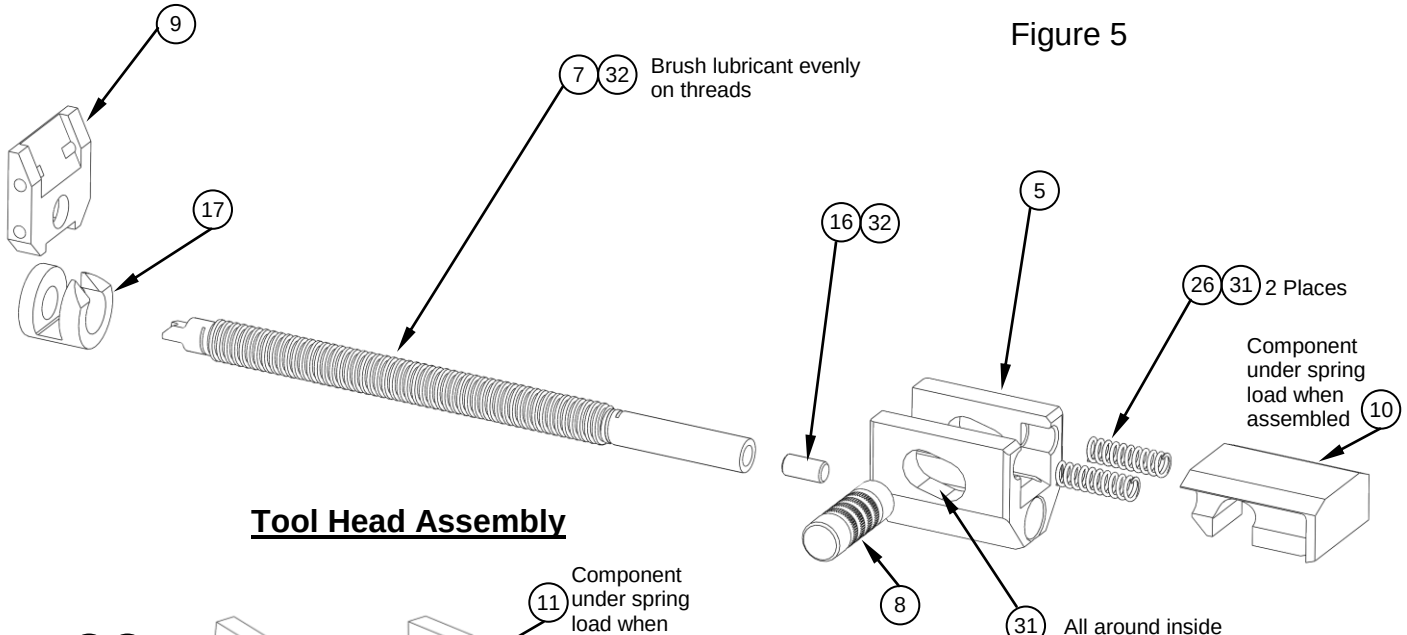
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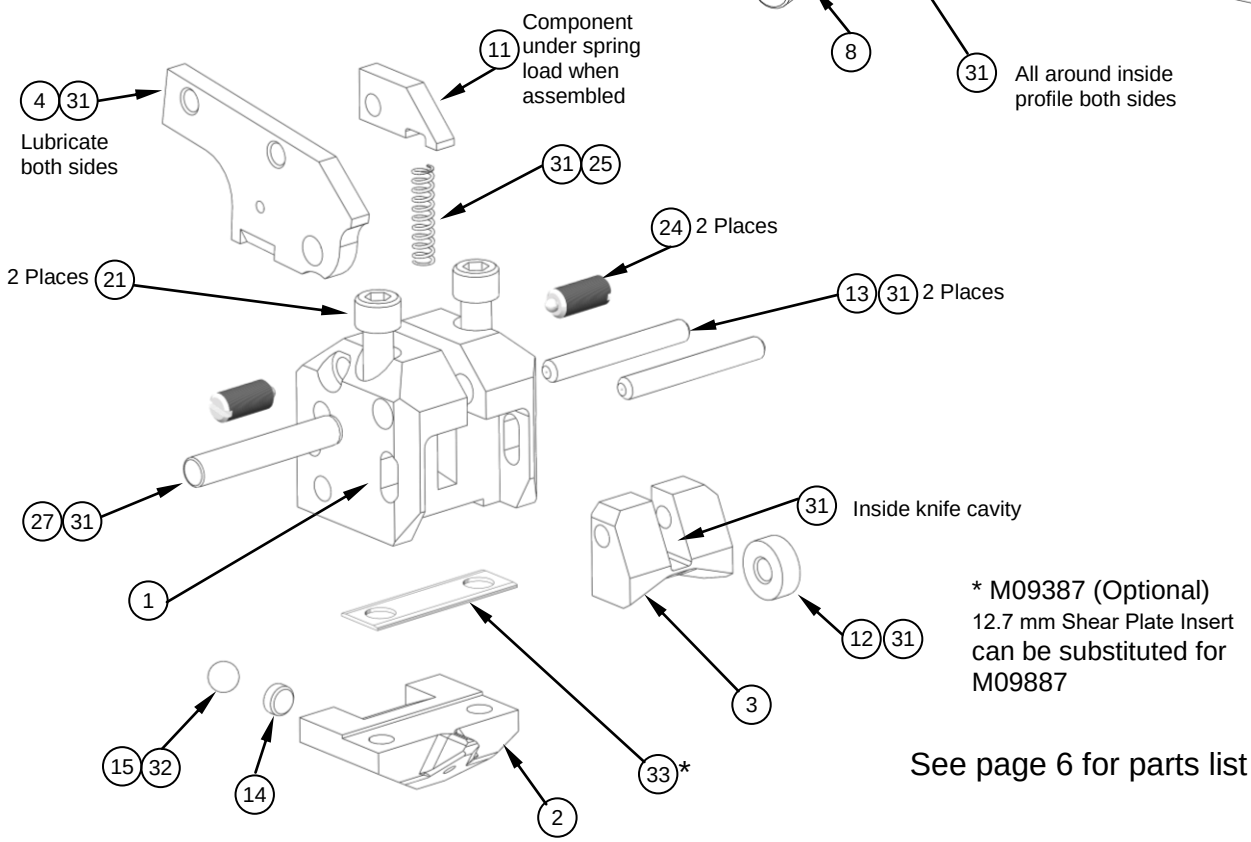
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Tension Gripper Assembly

Figure 5



Tool Head Assembly



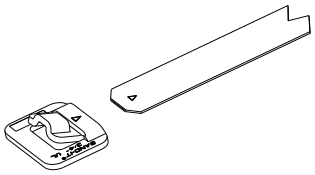
See page 6 for parts list

Figure 6

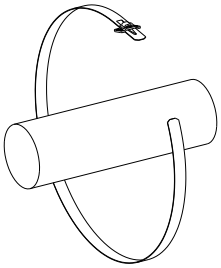
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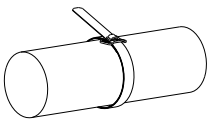
1. Break off an Ultra-Lok® Free-End tie from the roll. Slide the buckle onto band with indented arrows pointing in same direction and same side up. Slide buckle all the way onto band until it comes to a stop between the two buckle dimples at opposite end of tie.

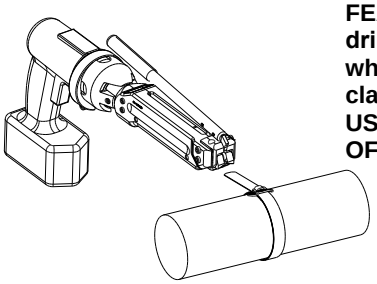


2. Wrap tie around object to be clamped. Insert the tie through buckle once for single-wrap or twice for double-wrap. Double-wrapped clamps have more than 3 times the loop-tensile strength.

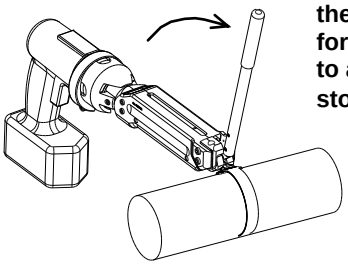


3. If desired, you may pre-form a clamp in the same fashion as step 2, or use a preformed clamp in place of a Free-End





DO NOT FEATHER the drill's TRIGGER when tensioning a clamp.
USE FULL SPEED OF TOOL

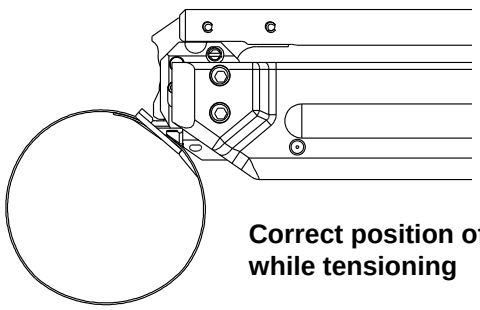


Push all the way forward to a solid stop

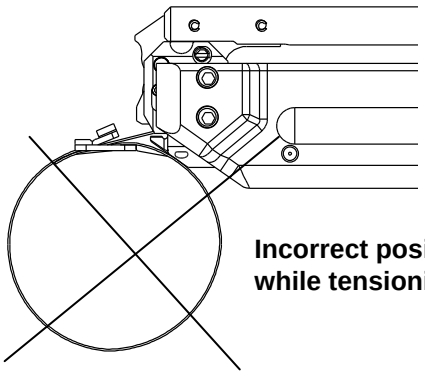
4. Position the tie on the object you are clamping. Pull the wrapped tie hand-tight. Slightly bend the tail up to keep the clamp in place

5. Actuate Drill until Tension Block is all the way forward against the tool body. Set Drill to clock-wise rotation. With cut-off handle down as shown, insert clamp tail into tool head slot. Actuate Drill until Drill's built-in clutch disengages. If Tension Block comes near its end of travel, release actuator switch and reverse Drill to pull more on clamp tail. Excessive use of disengaging Drill Clutch indicated by a loud ratcheting sound leads to premature wear of tension screw.

6. Do not force the tool against the clamp; it may result in a folded clamp tail.
7. Pull the cut-off handle forward to cut tail off and form a lock, then return handle to the down position. Reverse drill and feed clamp tail out of tool.
8. Tap down buckle shroud to complete clamp. Tool is ready for next clamp.



Correct position of tool while tensioning



Incorrect position of tool while tensioning

Clamp Inspection

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Inspect buckle on completed clamp and tap down buckle shroud.

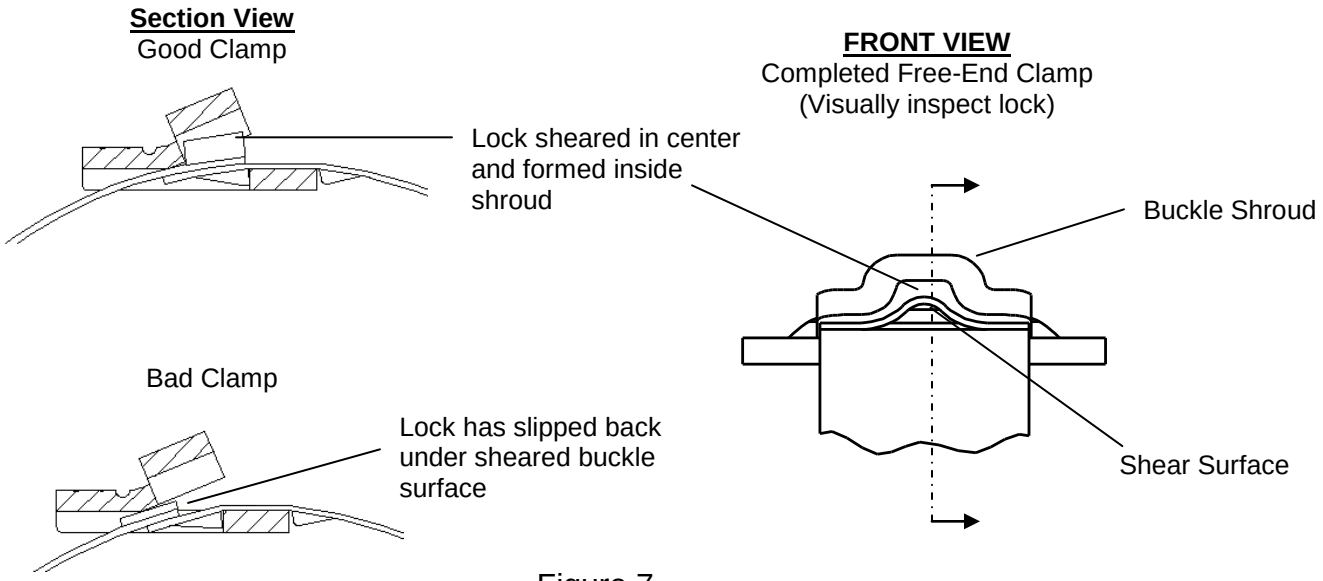


Figure 7

Important: Visually inspect lock formed in band as shown. If lock has slipped under the sheared surface of the buckle, remove clamp and install a new one at reduced tension by lowering the Drill Clutch torque setting.

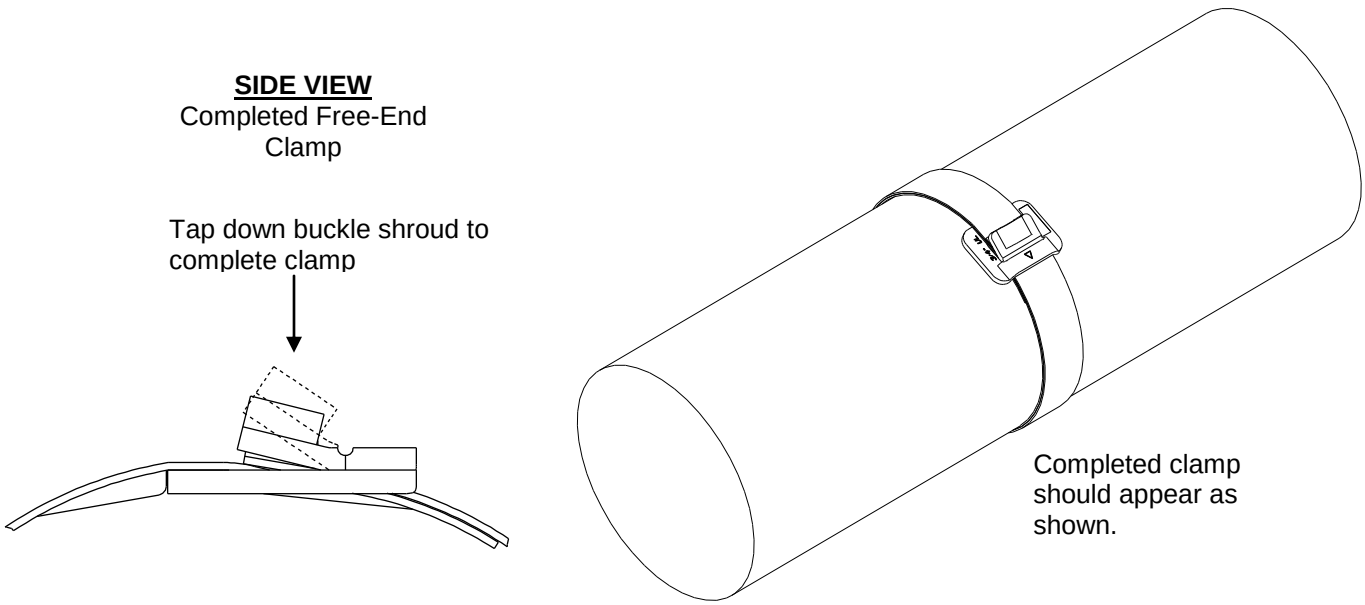


Figure 8

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Place clamp in desired position on object to be clamped.
Start at Step 4 on Page 9
Inspect buckle on completed clamp and tap down buckle shroud as shown on Page 10 Figures 7 and 8.

NOTE FOR HOSE APPLICATIONS:
When applying clamps on soft, thick-walled hose, tension clamp then wait a full 30 seconds. Clamps may be re-tensioned by squeezing the Drill Trigger on the power unit a second time prior to forming the lock and cutting the excess clamp tail. This allows hose to "settle" under the band of the clamp. This hose material attribute is called Cold Flow. Finally, complete clamp by tapping down the buckle shroud as described above.

Trouble-Shooting

1. **Lock slips down in buckle:** Tighten blade mounting screws. If lock on clamp is still not adequate, reduce tension on tool by setting torque setting on the Drill Dial to a lower number.
2. **Drill clutch releases prematurely:** Make sure Tool is fully seated on Drill (per page 4). If problem persists, contact BAND-IT technical support.
3. **If tool does not cut off on initial setting:**

   Step 1: Pull trigger of tool after engaging cutter blade.

   Step 2: Increase torque setting slightly, and repeat tensioning band and engaging of cutter blade.

   Step 3: Repeat steps 1 and 2 until band cuts.
4. **Tool does not fully tension clamp:** Check battery charge level, replace if low. If problem persists check gripper assembly and tension screw for excessive dirt/grime build up.

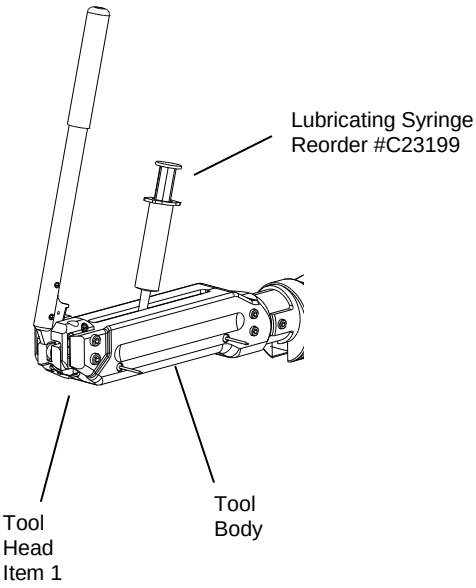
Note: To mitigate Drill Clutch wear, do not over-use the Drill Clutch. When tensioning a clamp, let the Drill Switch go as Tension Block nears its end of travel. Reverse drill and send Tension Block all the way forward for a second pull on the band.

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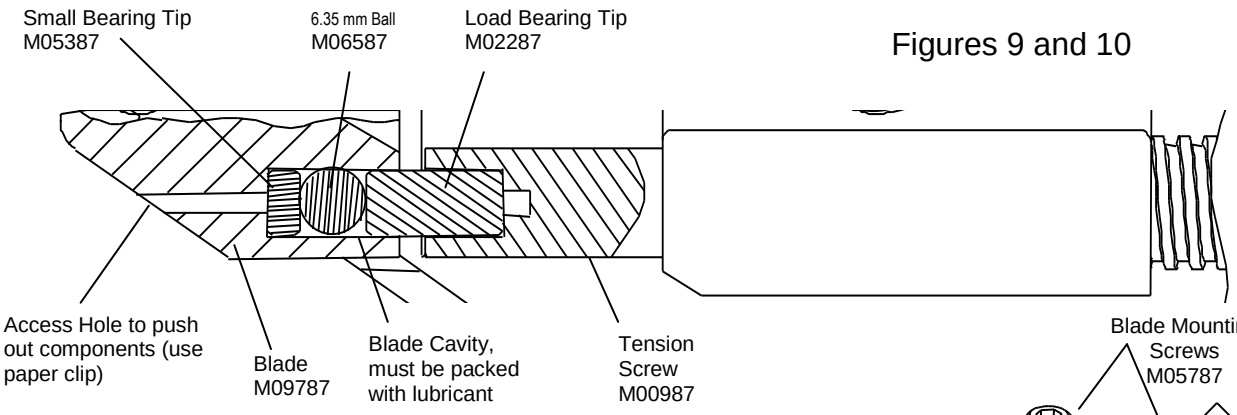
1. Approximately every 500 clamps lubricate Tension Screw with molybdenum disulfide lubricant, or equivalent.
Make sure Tension Block is all the way forward against the Tool Head. Remove cap from syringe and insert tip of syringe into slot on top of tool body. Press the tip against the Tension Screw just behind the Tension Block and squeeze out approximately 12.7 mm long bead of lubricant. Remove Syringe, and actuate tool without a clamp a couple of times to spread lubricant evenly on tension screw.

To order more lubricant, specify BAND-IT #C23199



2. Every 500-1000 clamps, depending on torque setting, inspect and repack front bearing with same lubricant. Turn load bearing tip and small bearing tip over for a new bearing surface.

Bearing Detail



Figures 9 and 10

3. To gain access to bearing components: remove blade Mounting Screws (2 places) and slide Blade free. Paper clip may be used to push bearing components out of Blade. Wipe lubricant from components. If ball or bearing tips appears heavily worn, replace with new one. Note: 6.35 mm ball is made from hard tungsten carbide material, do not replace with regular ball bearing. (Smooth indention from ball in the bearing tips is normal).

To re-assemble bearing components: wipe blade cavity clean. Push small bearing tip into blade cavity. Apply lubricant to ball and push into Blade cavity and fill remaining space with lubricant. Push load bearing tip firmly into blade cavity, some lubricant will be squeezed out. Re-attach blade to Tool Head, making sure that load bearing tip extends into Tension Screw. While turning Blade Mounting Screws into Blade, push on Blade rear-wards. Tighten screws to approximately 13.56 N m

4. When replacing worn Blade follow instructions above to properly re-assemble bearing components.

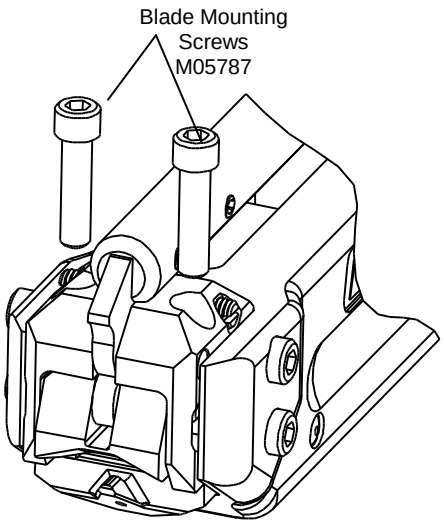


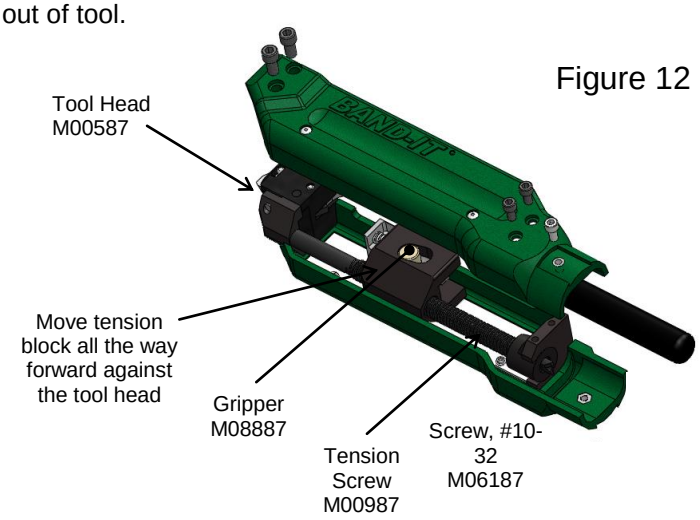
Figure 11

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5. To replace Gripper: Make sure Tension Block is all the way forward against the tool head. Remove drill. Remove tool adapter body. Remove one side of the tool body or the other, not both. Slide Gripper out sideways and replace with a new one. Re-attach Tool Body side. **Caution:** Do not push or move Tension Block while Gripper is out of tool.

Figure 12



6. To replace Tension Screw: Move Tension Block all the way back (away from Tool Head) using drill in tensioning mode (clock-wise). Remove Ultra-Lok® Tool from Drill. Remove the Tool Adapter from the Ultra-Lok® Tool. Remove Blade and load bearing tip from Tensioning Screw (see bearing detail). Remove one side of the Tool Body or the other, not both. Grasp the smooth barrel on Tension Screw and pull all the way forward until Tension Block is against the Tool Head. If Tension Screw is stuck, use a punch and tap the center of the screw from the back end of the tool. Turn Tension Screw out of Tension Block. Lubricate new Tension Screw with Molybdenum Disulfide lubricant, or equivalent. Install new Tension Screw in reverse order; making sure that back end of Tension Screw extends well beyond the back end of the Tension Block. Push the assembly all the way back and extend the round portion of the Tension Screw through holes on the tripper bracket and back guide plate. Reinstall Tool Body side. Reinstall Blade and tighten the Blade Mounting Screws approximately 13.56 N m Reattach Tool Adapter to Ultra-Lok® Tool. Reattach Tool to Drill and drive Tension Block all the way forward.

Note: Drills needing repair must be forwarded to an authorized ‘Metabo’ repair center in your area. Be sure to remove BAND-IT drill clutch assembly (UL4001) from drill.

Metabo Drill is covered solely by the Metabo warranty as described in the Metabo literature. BAND-IT does not extend any warranty of any kind to the drill.

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To change out the tool to the 12.7 mm version, the following steps should be followed.
***NOTE: Do not attempt to use 12.7 mm clamps with 19.05 mm head. (Shear Plate change-out: 3-5 minutes)**

1. Prior to separation from power drill, back off Tension Block assembly 12.7 mm from head unit. See page 7 Figure 4.

2. Detach Tension Body from the Drill by loosening the single tensioning bolt on the aluminum collar and separating the two sections.

3. Remove the Blade from head by removing the two Cap Screws (M05787) from the top of the Head. It is not necessary to remove entire head from tool in order to remove blade. (Figure 13) Remove the 19.05 mm shear plate from the blade.

4. Align the 12.7 mm Shear Plate (M09387) with the Blade (M09787) so that the guide is facing up. Incorrect placement will not allow bands to be inserted into the Tool. (Figure 13)
   Note: To convert Tool back to 19.05 mm, replace 12.7 mm Shear Plate with 19.05 mm Shear Plate (M09887) and follow same instructions. Be sure to retain unused Shear Plate for later use.

5. Attach the Blade and 12.7 mm Shear Plate onto Head using the two previously removed Cap Screws. These Cap Screws must be tight to assure proper cut-off of clamp tails.

6. Re-attach Drill to Tension Body making sure the Drill and Tension Body are properly aligned, and tighten the single Blade Cap Screw located on the Adapter Collar.

7. **These tools are NOT designed to work with traditional band and buckle designs**. BAND-IT Ultra-Lok® clamps must be used.

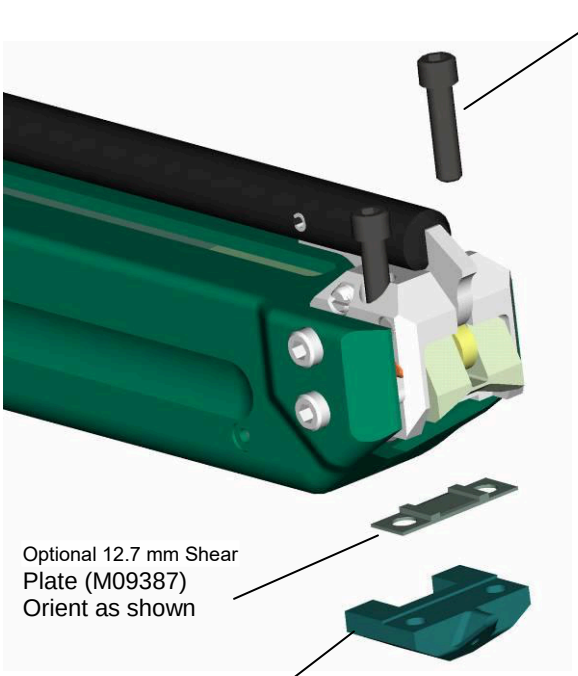


Figure 13

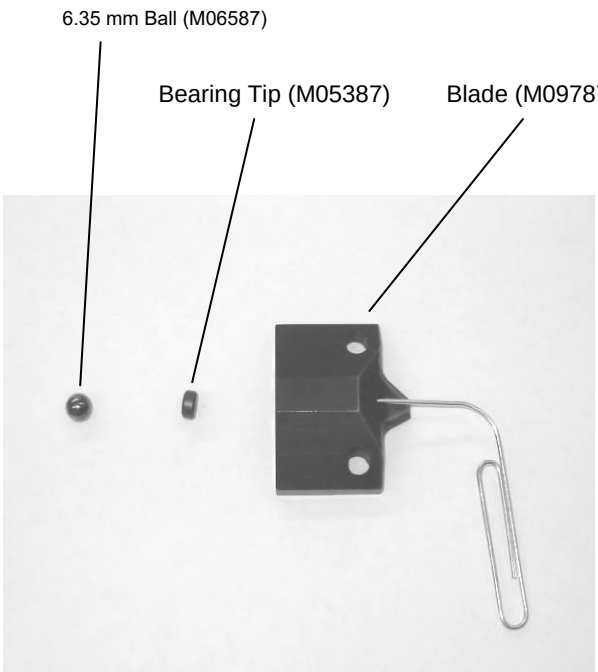


Figure 14

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