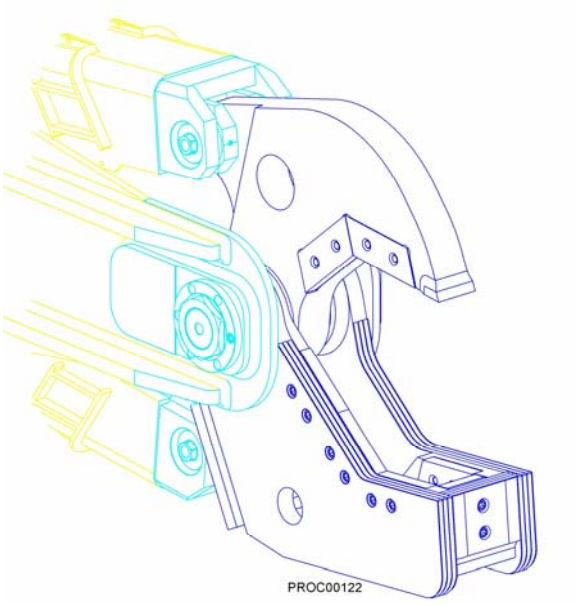
MATERIAL PROCESSOR

K JAW BLADE
AND
PIERCING TIP MAINTENANCE
AND INSTALLATION



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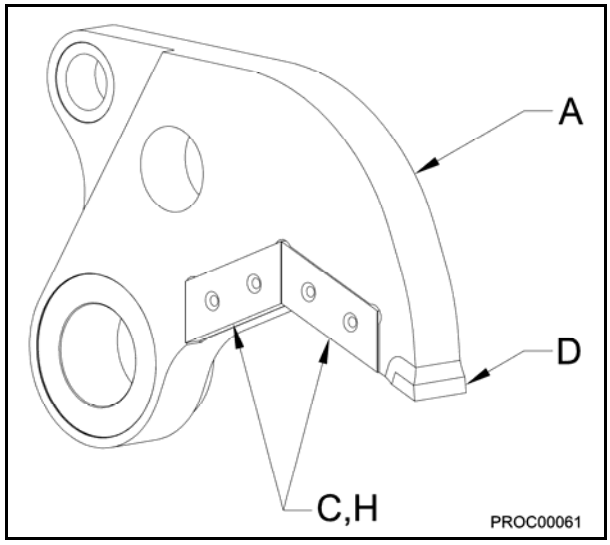
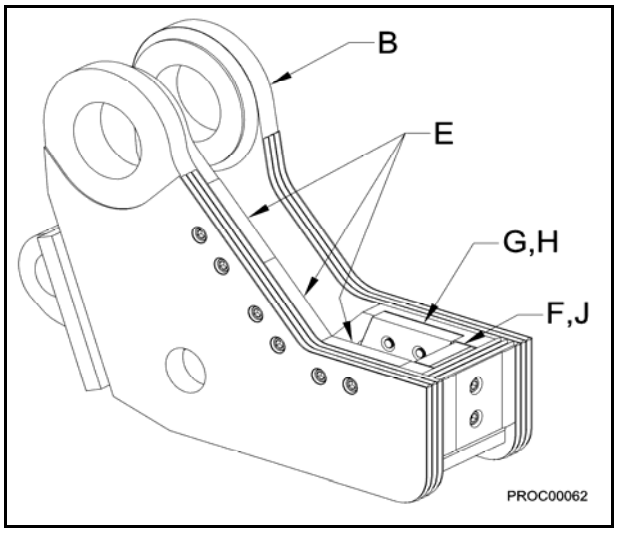
COMPONENT DESCRIPTION

Male Jaw (A) contains the primary cutting blades (C), spacer plates (H) and piercing tip (D).



Female Jaw (B) contains the secondary cutting blades (E), tunnel blade, blade spacer (J), guide blade (G) and spacer plate (H).



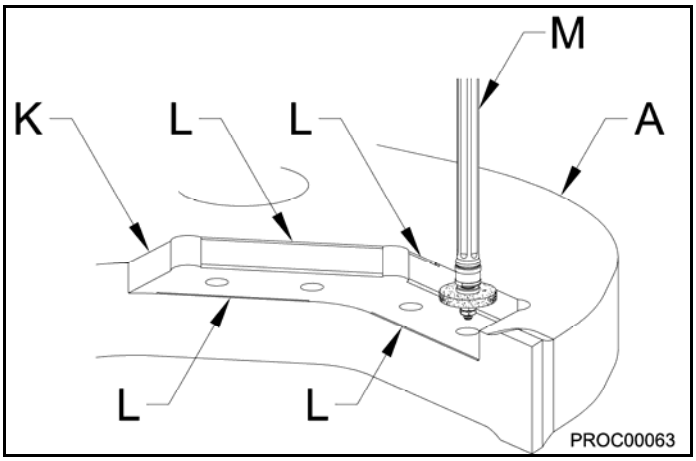
Each cutting blade and the tunnel blade can be turned four times; the guide blade can only be turned twice. The piercing tip is a weld in tip, but can be built up via a weld procedure. The piercing tip is also replaceable.

When replacing or turning cutting blades, the following steps must be followed to achieve accurate blade shimming and final blade clearance.

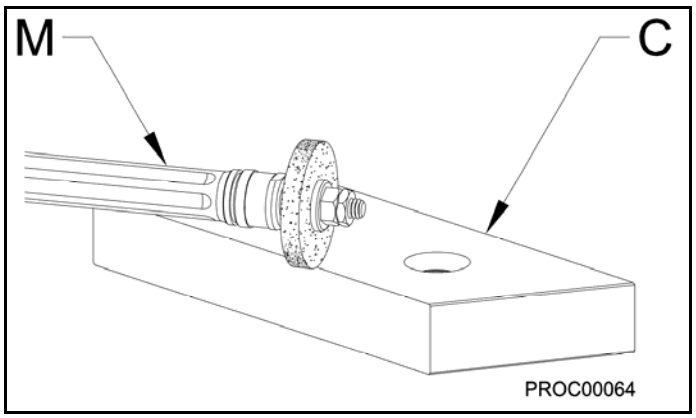
COMPONENT DESCRIPTION, CONTINUED

STEP 1:

Start with the Male Jaw (**primary blades**); these blades should be installed first. Prior to installing, the male jaw blade pocket (K) needs to be free from debris and raised edges. Clean pocket and remove any raised edges (L) from the blade pocket using a grinder (M). If this blade pocket is found to be deformed, contact NPK for additional information.



If existing blades (C) are being turned, the blade face must also be free of scars. Remove scars using a grinder (M).

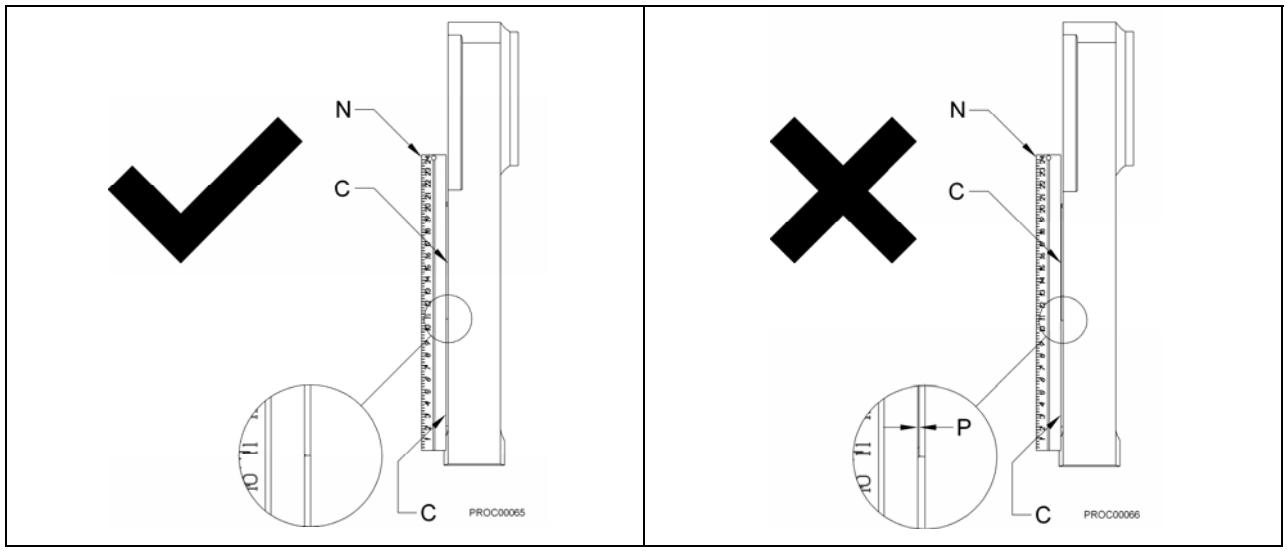


Each primary blade will have a spacer plate placed between the blade and the blade pocket. Install and tighten blade bolts.

COMPONENT DESCRIPTION, CONTINUED

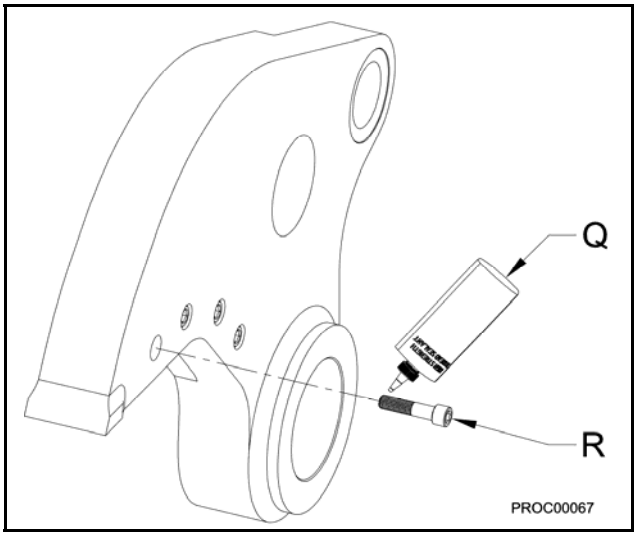
STEP 2:

Using a steel straight edge (N), place the straight across the face of the primary blades (C). There should not be any gap (P) between either blade and the straight edge. If the blades are being turned, and a gap (P) is found between either of the blades and the straight edge, measure the gap (P) using feeler gauges then remove the measured amount from the high blade by grinding, (blade may require surface grinding at a machine shop). If the difference between the blades is excessive, install new blades. ***DO NOT ADD SHIMS BEHIND THE PRIMARY BLADES.***



STEP 2, continued:

It is imperative that the primary blade faces are parallel/even in order to achieve correct blade clearance between the primary and secondary blades. Once the primary blades are in place, use thread adhesive (Q) on the blade bolts (R) and torque to the NPK specifications.



COMPONENT DESCRIPTION, CONTINUED

STEP 3:

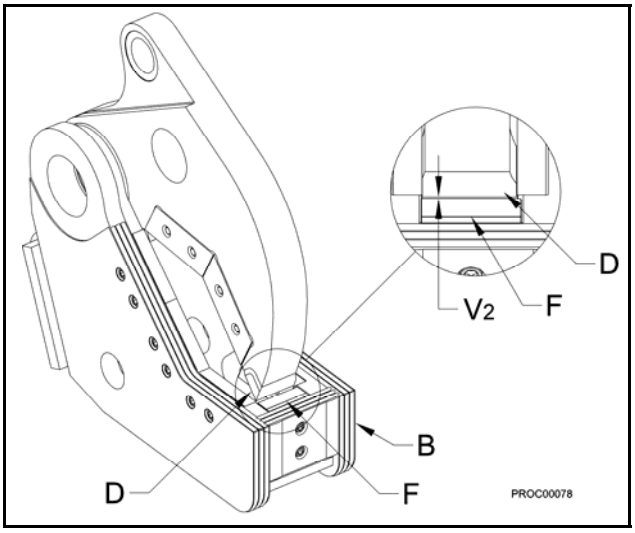
If the gap between the straight edge and the piercing tip is minor and the wear on the lead edge and the corners of the tip is not excessive, weld build-up of the tip is recommended. Follow the **Build-up Procedures** listed in the service manual. If tip wear is excessive, **replace** the piercing tip. Follow the **Replacing Piercing Tip** procedures listed in the service manual.

STEP 4:

After completing the welding and grinding build of the tip, place the straight edge once again on the face of the primary blades to confirm that the side of the piercing tip and primary blades are parallel.

STEP 5:

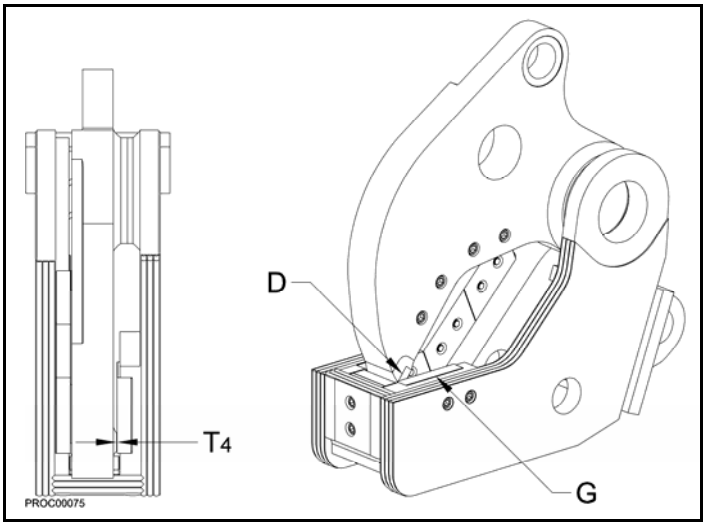
Slowly close the jaws until the piercing tip enters the tunnel, verify the clearance between the lead edge of the piercing tip and the tunnel blade. This clearance should be approximately .010 to .040 inch. Additional welding or grinding may be required to achieve the desired clearance. When installing a new piercing, the clearance between the piercing tip and tunnel blade can be set when placing the new tip in the male jaw.



COMPONENT DESCRIPTION, CONTINUED

STEP 6:

Close the jaw until the side of the piercing tip is next to the guide blade, measure the clearance and add shims to achieve a clearance of .005 in. Apply thread adhesive and torque the guide blade bolts to NPK specifications.



STEP 7:

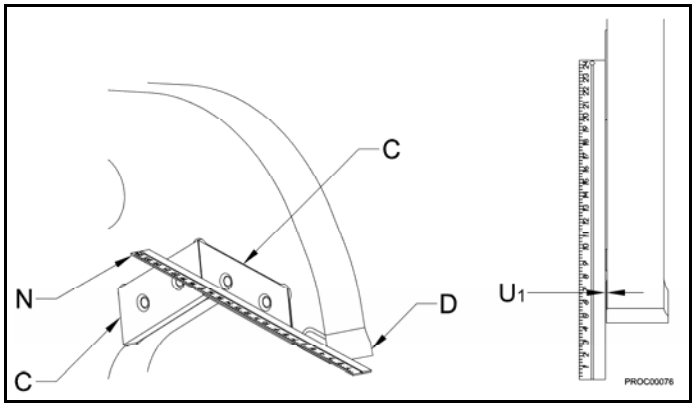
After completing all welding maintenance, allow the jaws to cool slowly (minimum of 8 hours) before using.

PIERCING TIP MAINTENANCE AND REPLACEMENT

The piercing tip profile must be maintained for piercing efficiency. Piercing tip build-up and/or replacement should be completed after all cutting blade, guide blade and tunnel blade maintenance has been completed. Perform the following steps to determine whether the piercing tip can be built up or should be replaced.

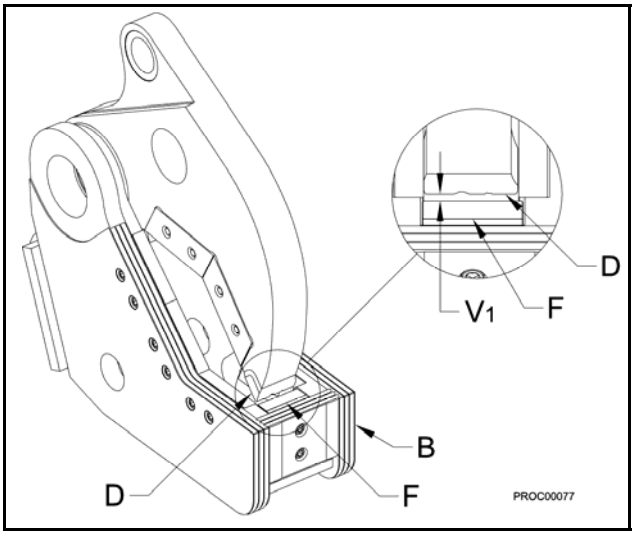
STEP 1:

Using a steel straight edge, place the straight edge on the face of the primary blades, the side of the piercing tip should be even/parallel with the primary blade face. Record the amount of clearance/gap between the straight edge and the side of the tip.



STEP 2:

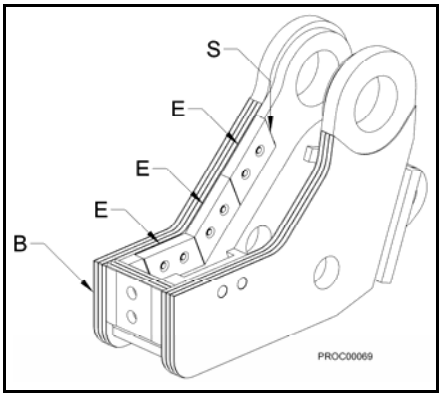
Close the jaws until the piercing tip (D) just enters the female jaw (B), (tunnel), note the wear on the corners of the piercing tip (D) and also the gap (V1) between the lead edge of the piercing tip (D) and the tunnel blade (F).



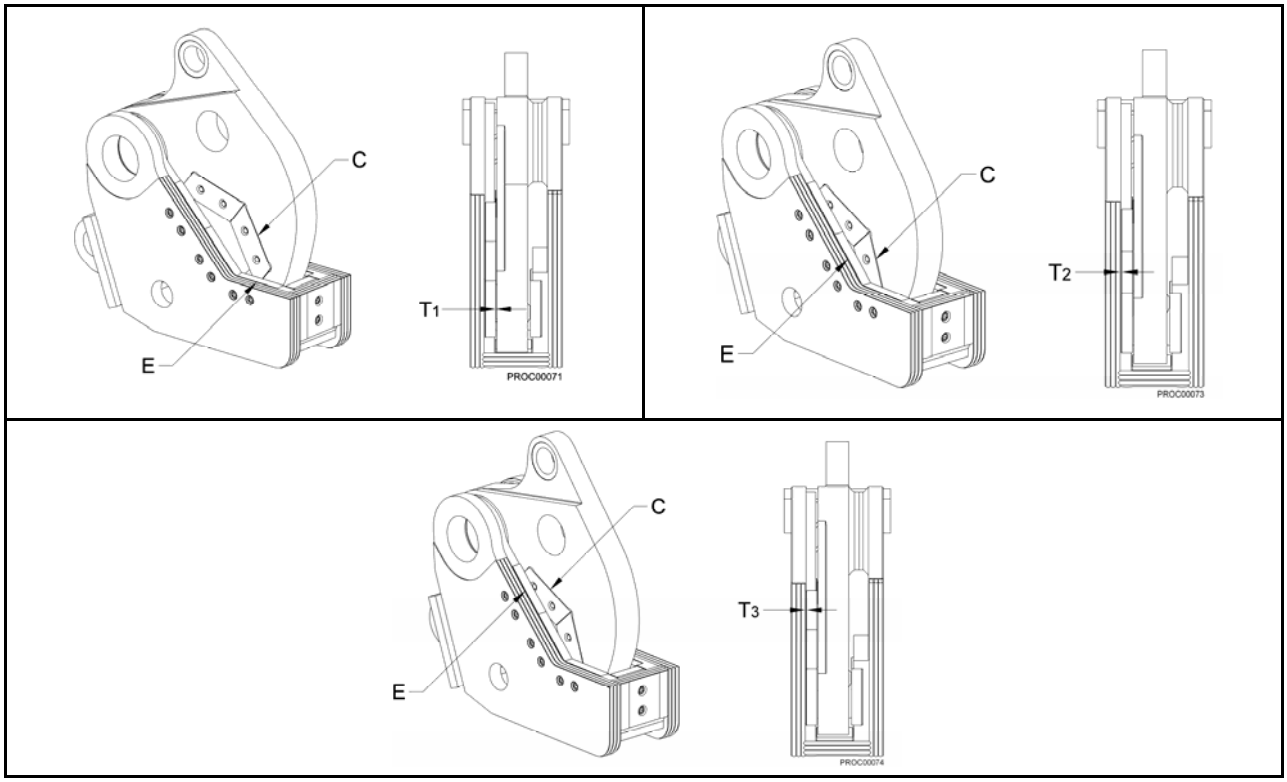
PIERCING TIP MAINTENANCE AND REPLACMENT, CONTINUED

STEP 3:

Install either reconditioned (used) or new secondary blades (E) in female jaw blade pockets (S), tighten blade bolts.

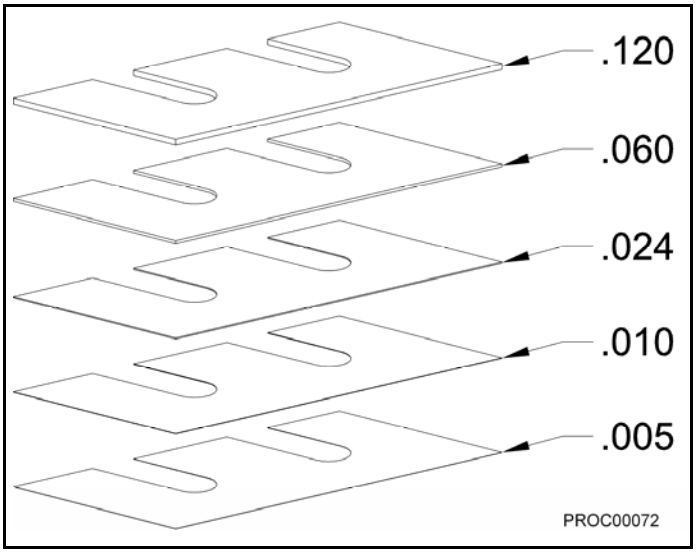


Begin closing the jaws (A & B) until the first primary jaw blade (C) begins passing the first secondary blade (E), stop closing the jaws and measure the clearance (T1) between the two blades. Record the clearance, (example .015 in.); continue closing the jaws stopping to record the clearance (T2) at the second female blade and the clearance (T3) at the third female blade.



PIERCING TIP MAINTENANCE AND REPLACMENT, CONTINUED

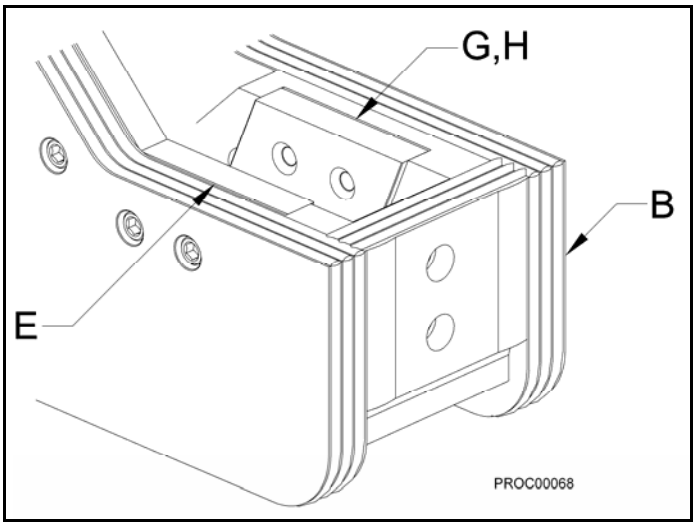
NPK shim packs have a variety of shims (i.e.: .005, .010, .024, .060, .120), install the required amount off shims behind each secondary blade until a clearance of .005 is achieved between all primary and secondary blades. (One shim pack for each blade recommended).



After blade shimming is complete, remove each secondary blade bolt and apply thread adhesive and torque to NPK specifications.

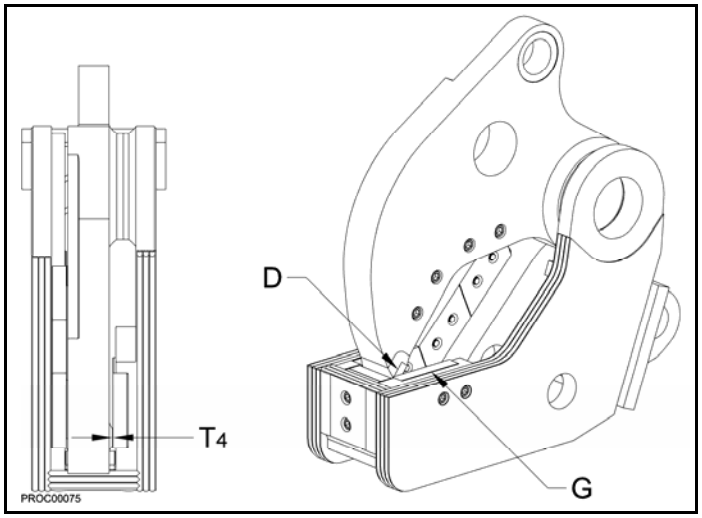
STEP 4:

The female jaw also has a guide blade (G) and a spacer plate (H); this blade is located directly across from the first secondary blade (E).



PIERCING TIP MAINTENANCE AND REPLACMENT, CONTINUED

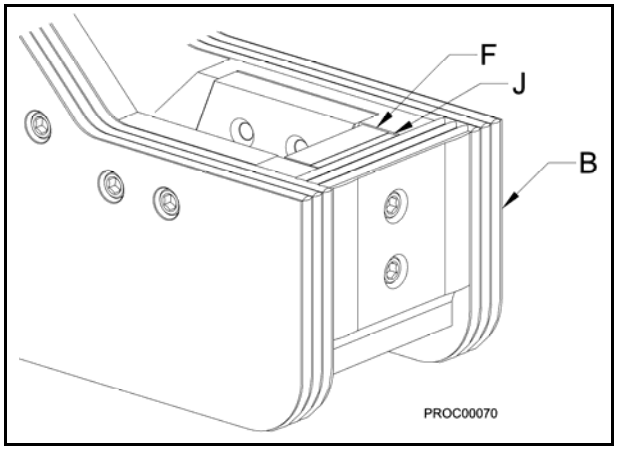
The guide blade (G) must also be shimmed as close as possible to the side of the piercing tip (D). Begin closing the jaws until the piercing tip (D) just enters the tunnel, stop and measure the clearance (T4) between the guide blade (G) and the side of the piercing tip (D). Install the required amount of shims to reduce this gap to .005. Apply thread adhesive and torque the guide blade bolts to NPK specifications.



SPECIAL NOTE:
The guide blade clearance will have to be rechecked after any weld build-up of the piercing tip.

STEP 5:

Inspect the tunnel blade, located in the bottom of the female jaw. If the lead edge is worn or rounded off, remove and turn the blade. This blade can be turned four times. There is a spacer plate between the blade and the pocket, be sure to install this spacer. Tunnel blade does not require shimming. Apply thread adhesive and torque bolts to NPK specifications.



M-SERIES JAW MAINTENANCE

The following information is to be used as a general guide for maintaining the jaws and cutter blades on the NPK M-Series Processor. Failure to maintain the jaws and cutter blades will result in poor performance, and eventual failure of the jaws and cutter blades. These failures are not covered under the standard NPK warranty.

⚠WARNING Use care when handling blades.
Do not over grind the cutter blades.

⚠CAUTION Do not weld on the cutter blades.

During normal use of a processor, the jaws and cutter blades will become worn. Regular maintenance must be performed to ensure that the maximum efficiency is realized.

DAILY MAINTENANCE

- Grease the two arm pins and the center pivot area 2 times per shift using an EP #2 grease. (15 pumps of grease).
- Check the jaw weldments for cracks. Contact NPK for repair procedure if crack is found.
- Inspect for loose, broken and missing fasteners. Replace and re-torque as required.
- Check the condition of the cutting blades. If the edge is rounded and dull, grind the edges back to 90°. Rotate the blades if extreme wear or chipping on the cutting edge is noted. If the blades are replaced or rotated, they must be shimmed. Blades should be shimmed from .005” to a maximum of .010”. Replace the blades if they are cracked.
- Use the following procedure when performing piercing tip and blade maintenance.

NOTES

NOTES

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