PROBLEMS & SOLUTIONS

EUROPA

BANDSAW BLADES

TROUBLE SHOOTING - BI METAL

TROUBLE SHOOTING - BI METAL

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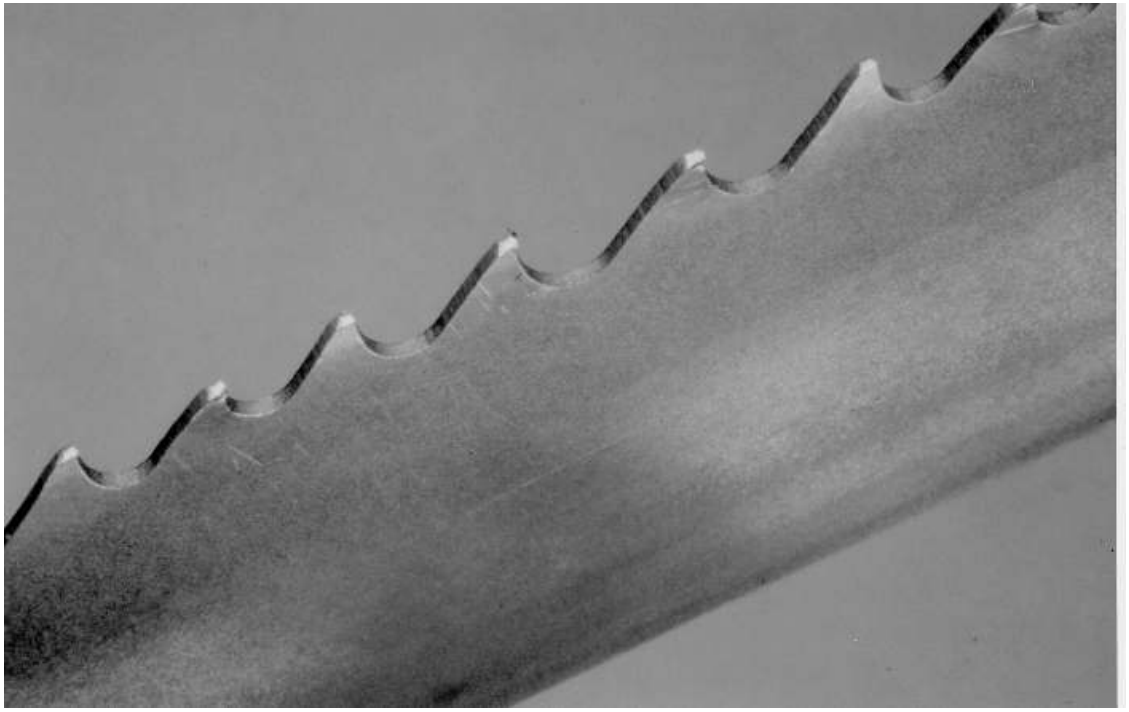
Heavy even wear on tips and corners of teeth.



Probable Causes

A. Improper break-in procedure.

B. Excessive band speed for the type of material being cut. This generates a high tooth tip temperature resulting in accelerated tooth wear.

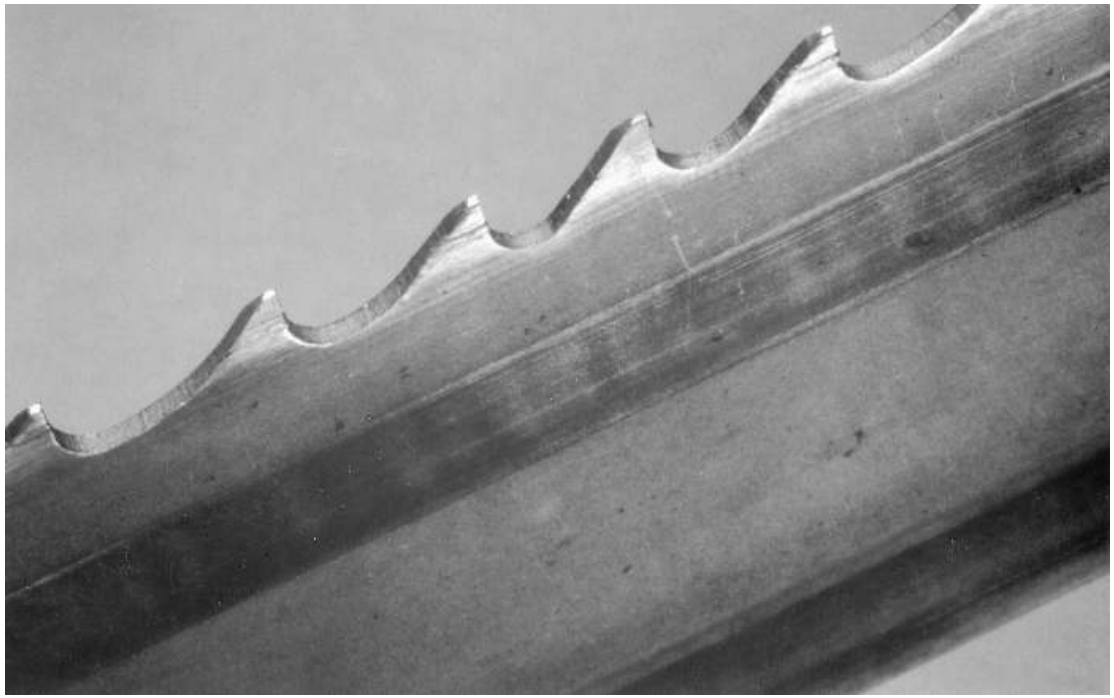
C. Low feed rate causes teeth to rub instead of penetrate. This is most common on work hardenable materials such as stainless and tool steels.

D. Hard materials being cut such as "Flame Cut Edge" or abrasive materials being cut such as "Fiber Reinforced Composites."

E. Insufficient cutting fluid due to inadequate supply, improper ratio, and / or improper Application.

TROUBLE SHOOTING - BI METAL

Wear on both sides of teeth.



Probable Causes

A. Broken, worn or missing back - up guides allowing teeth to contact side guides

B. Improper side guides for band width.

C. Backing the band out of an incomplete cut.

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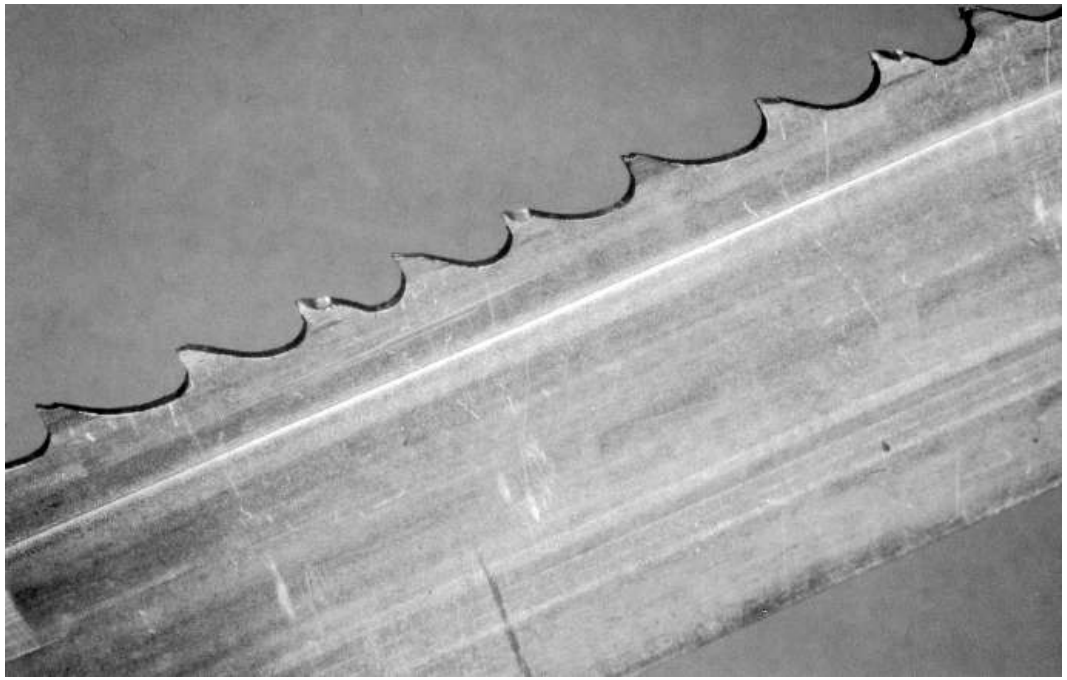
PROBLEMS & SOLUTIONS

Chipped or broken teeth.



A scattered type of tooth breakage on tips and corners of the teeth.

Probable Causes

A. Improper break-in procedure.

B. Improper blade selection for application.

C. Handling damage due to improper opening of folded band

D. Improper positioning or clamping of Material. (Bars that have spun)

E. Excessive feeding rate or feed pressure.

F. Hitting hard spots or hard scale in material.

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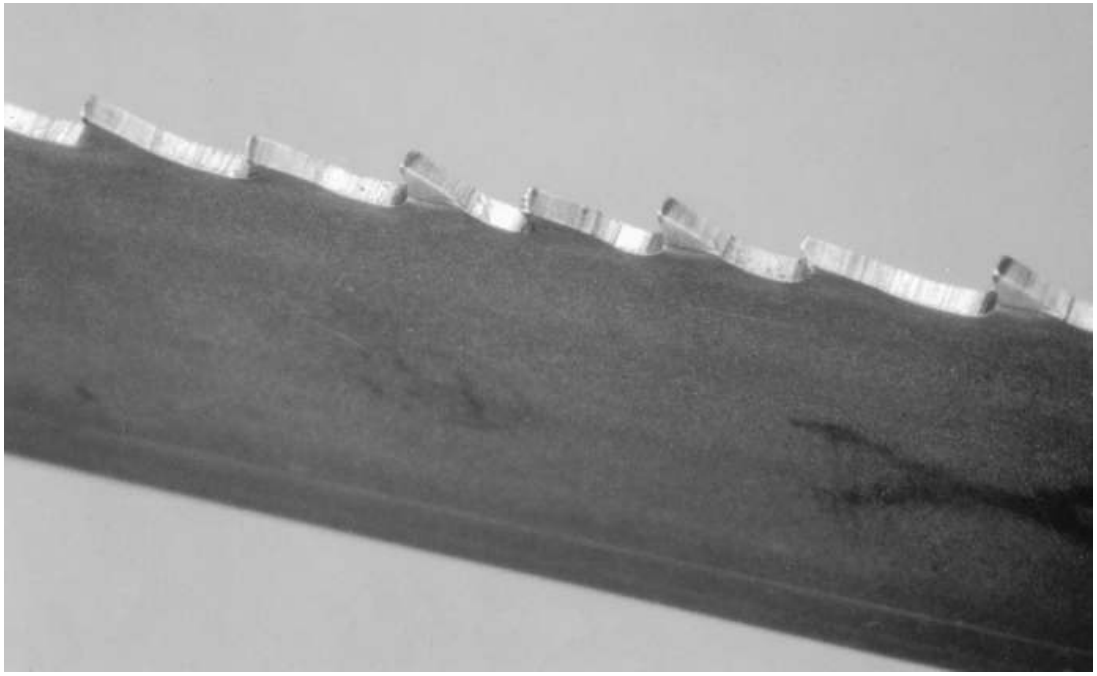
TROUBLE SHOOTING - BI METAL

Discolored tips of teeth due to excessive frictional heat.



The tooth tips show a discolored surface from generating an excessive amount of frictional heat during use.

Probable Causes

A. Insufficient cutting fluid due to inadequate supply, improper ratio and/or improper application.

B. Excessive band speed.

C. Improper feeding rate.

D. Band installed backwards.

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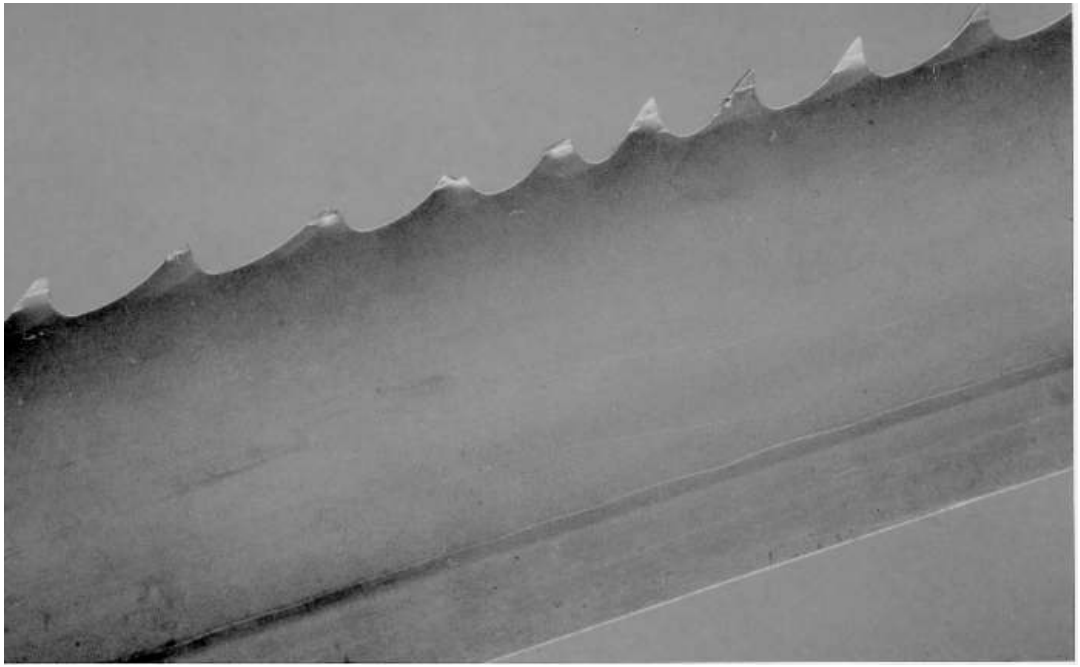
TROUBLE SHOOTING - BI METAL

Tooth Strippage



Section or sections of teeth which broke from the band backing.

Probable Causes

A. Improper or lack of break- in procedure.

B. Worn, missing or improperly positioned chip brush.

C. Excessive feeding rate or feed pressure.

D. Movement or vibration of material being Cut.

E. Improper tooth pitch for cross sectional Size of material being cut.

F. Improper positioning of material being cut.

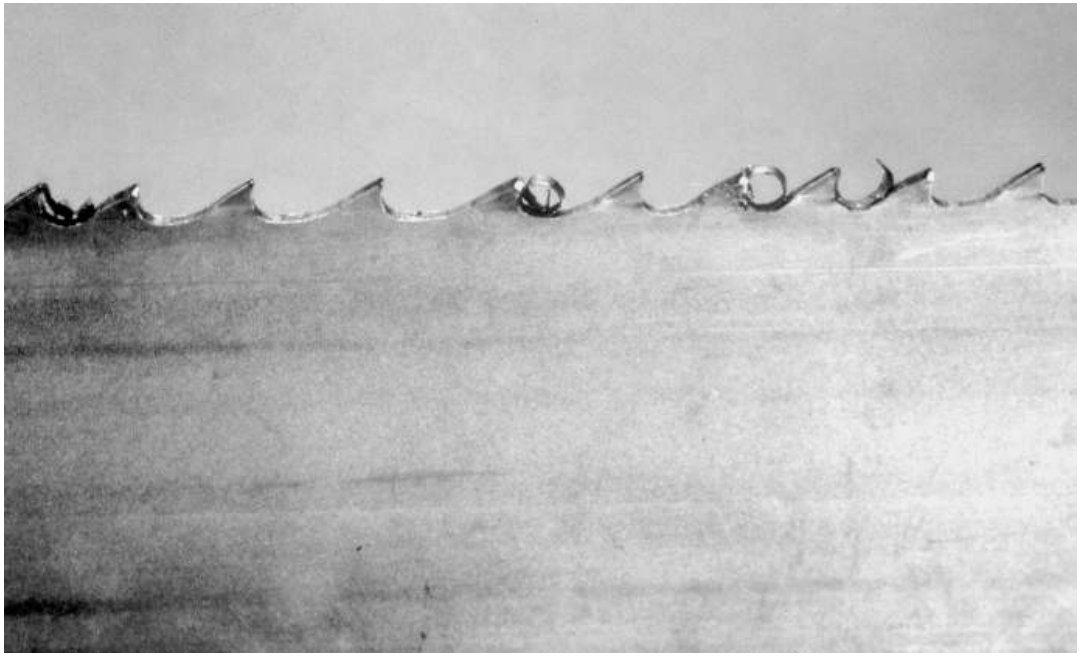
G. Insufficient cutting fluid due to inadequate supply, improper ratio and/or improper application.

H. Hard spots in material being cut.

I. Band speed too slow for grade of material being cut.

TROUBLE SHOOTING - BI METAL

Chips welded to tooth tips.



High temperature or pressure generated during the cut bonding the chips to the tip and face of teeth.

Probable Cause

A. Insufficient cutting fluid due to inadequate Supply, improper ratio and/or improper Application.

B. Worn, missing or improperly positioned Chip brush.

C. Improper band speed.

D. Improper feeding rate.

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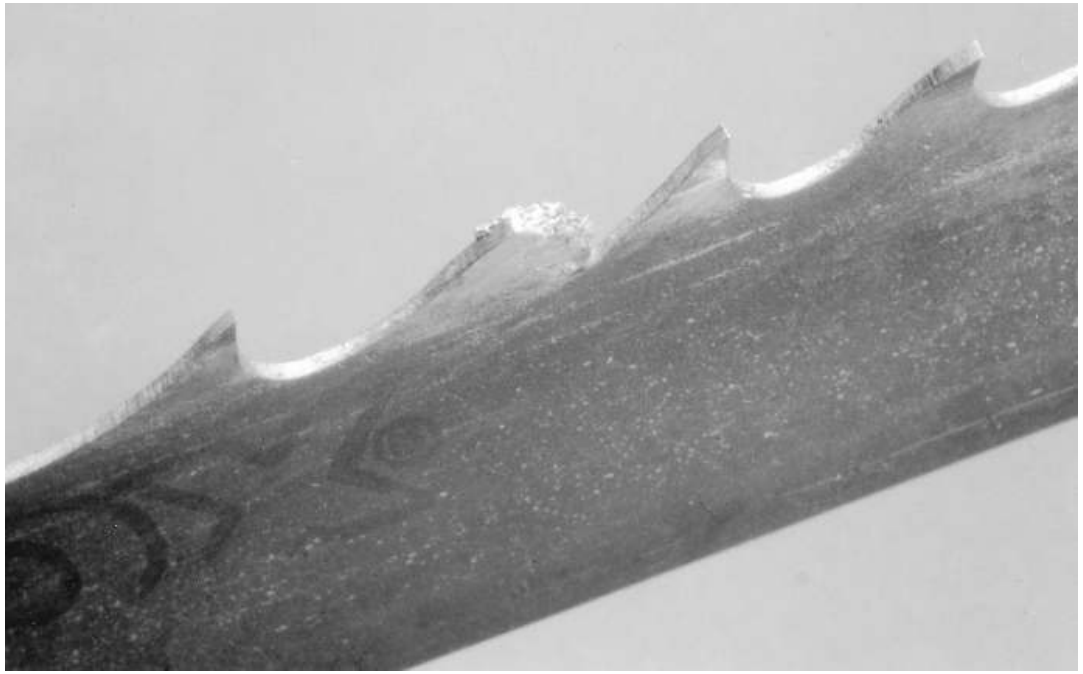
TROUBLE SHOOTING - BI METAL

Gullets loading up with material.



High temperature or pressure generated during the cut bonding the chips to the tip and face of teeth.

Probable Causes

A. Too fine of a tooth pitch insufficient gullet capacity.

B. Excessive feeding rate producing too large of a chip.

C. Worn, missing or improperly positioned chip brush.

D. Insufficient cutting fluid due to inadequate supply, improper ratio and/or improper application.

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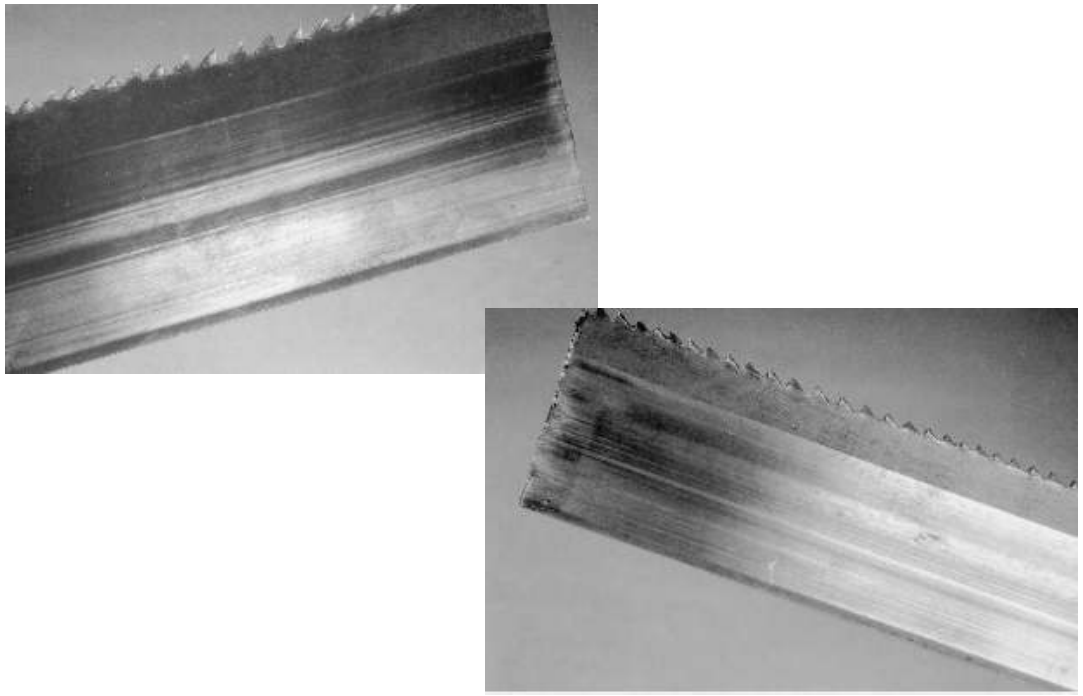
TROUBLE SHOOTING - BI METAL

Heavy wear on both sides of band.



Both sides of band have heavy wear patterns.

Probable Cause:

A. Chipped or broken side guides.

B. Side guide adjustment may be too tight.

C. Insufficient cutting fluid due to inadequate supply, improper ratio and/or improper application.

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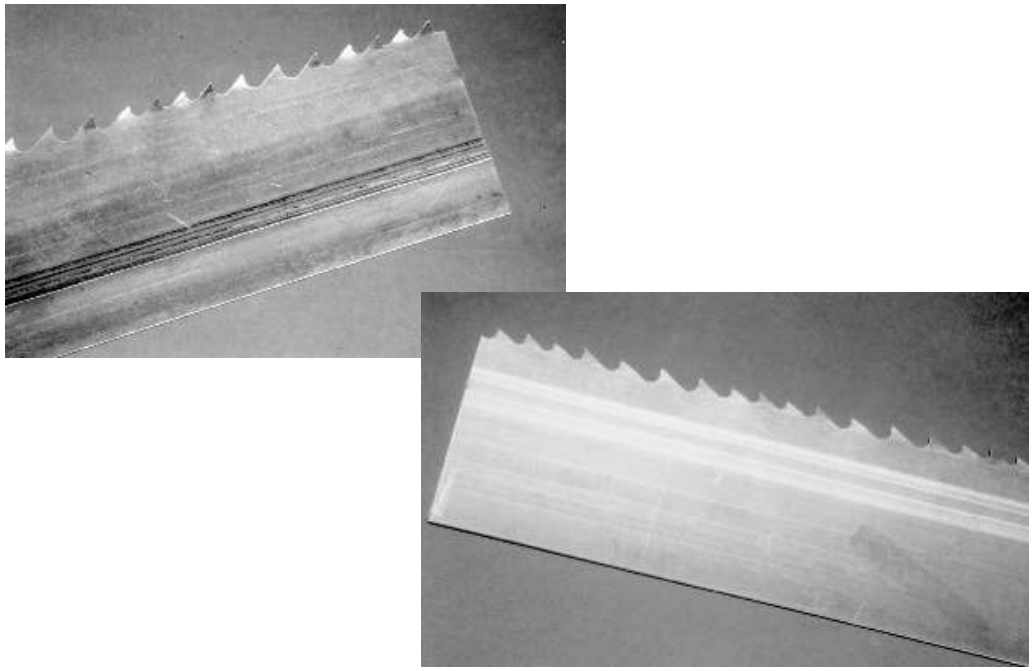
PROBLEMS & SOLUTIONS

TROUBLE SHOOTING - BI METAL

Uneven wear or scoring on the sides of the band.



Wear patterns are near gullet area on one side and near back edge on opposite side.

Probable Cause:

A. Loose side guides

B. Chipped, worn or defective side guides.

C. Band is rubbing on part of the machine.

D. Guide arms spread to maximum capacity.

E. Accumulation of chips in side guides.

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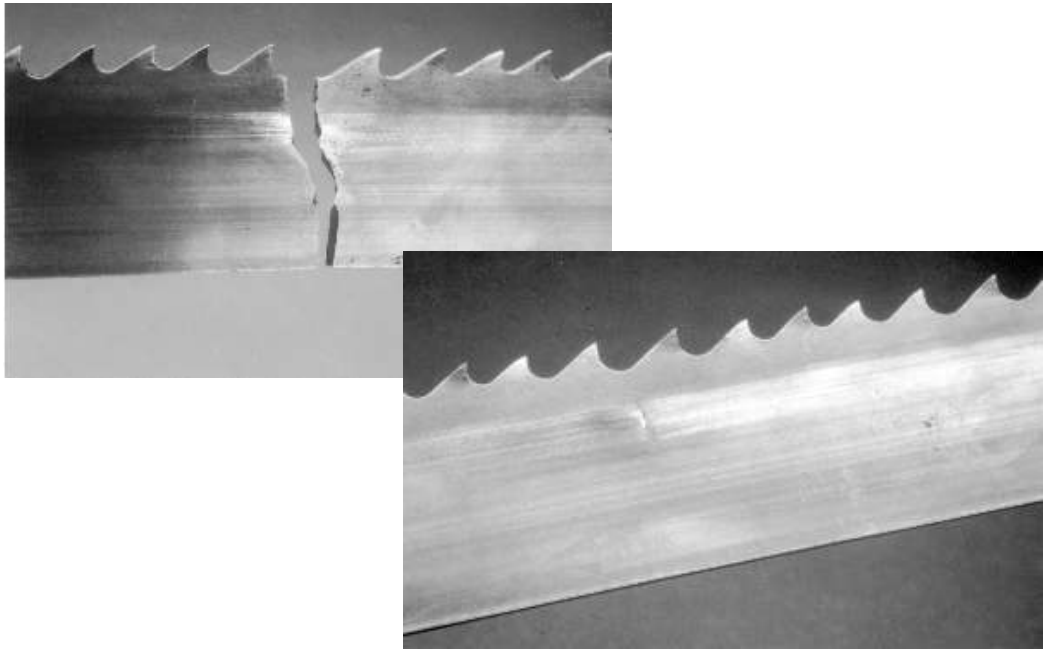
PROBLEMS & SOLUTIONS

TROUBLE SHOOTING - BI METAL

Body breakage or crack from gullets.



Body break from gullet. Gullet crack. The origin of the fracture is indicated by a flat area on the fracture surface.

Probable Cause:

A. Excessive back up guide "pre - load".

B. Improper band tension.

C. Guide arms spread to maximum capacity.

D. Improper beam bar alignment.

E. Side guide adjustment is too tight.

F. Excessively worn teeth.

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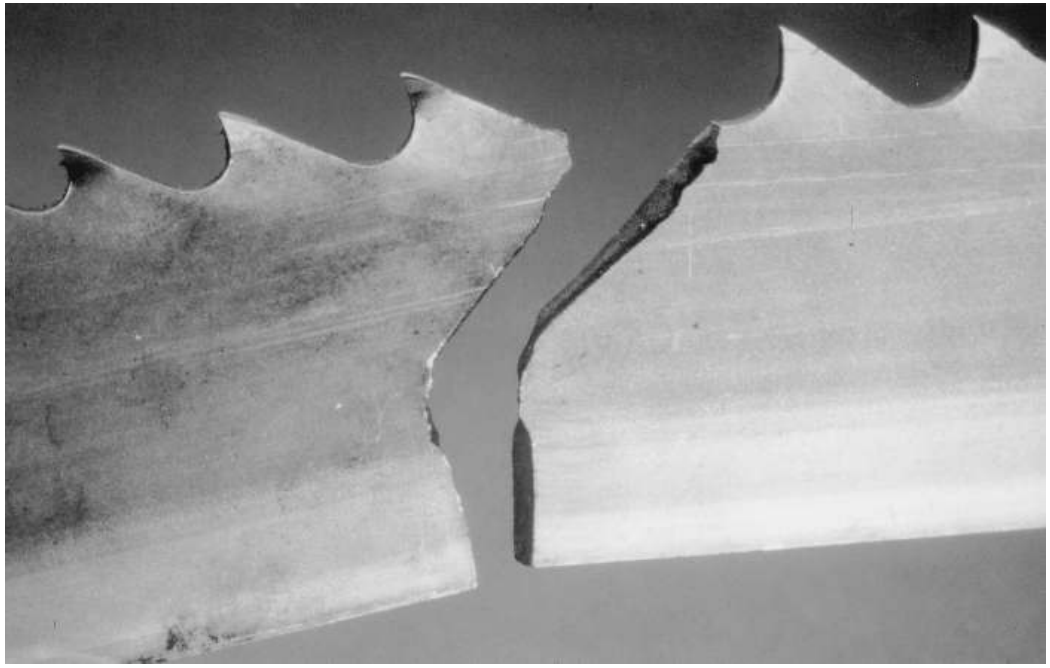
PROBLEMS & SOLUTIONS

TROUBLE SHOOTING - BI METAL

Body breakage - fracture traveling in an angular direction.



The fracture originates in the gullet and immediately travels in an angular direction into the backing of band.

Probable Cause:

A. An excessive twist type of stress existed.

B. Guide arms spread to capacity causing excessive twist from band wheel to guides.

C. Guide arms spread too wide while cutting small cross sections.

D. Excessive back up guide "pre-load".

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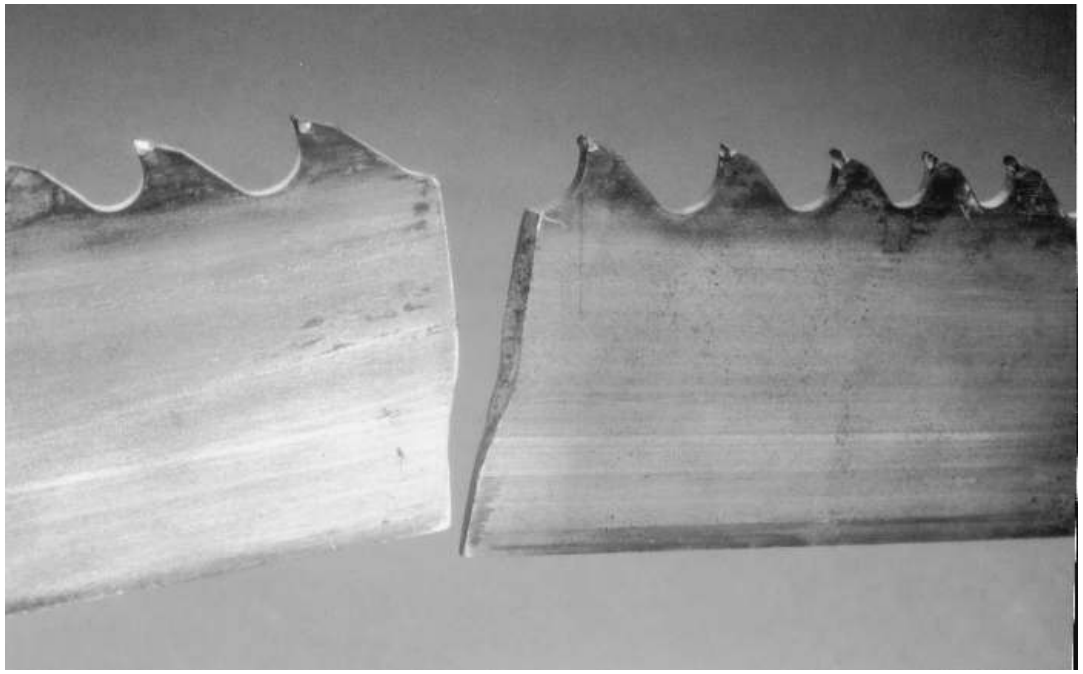
TROUBLE SHOOTING - BI METAL

Body breakage or cracks from back edge.



The fracture originates from the back edge of band. The origin of the fracture is indicated by a flat area on the fracture surface.

Probable Cause:

A. Excessive back - up guide "pre - load" will Cause back edge to work harden which Results in cracking.

B. Excessive feeding rate.

C. Improper band tracking - back edge Rubbing heavy on wheel flange.

D. Worn or defective back- up guides.

E. Improper band tension.

F. Notches in back edge from handling Damage.

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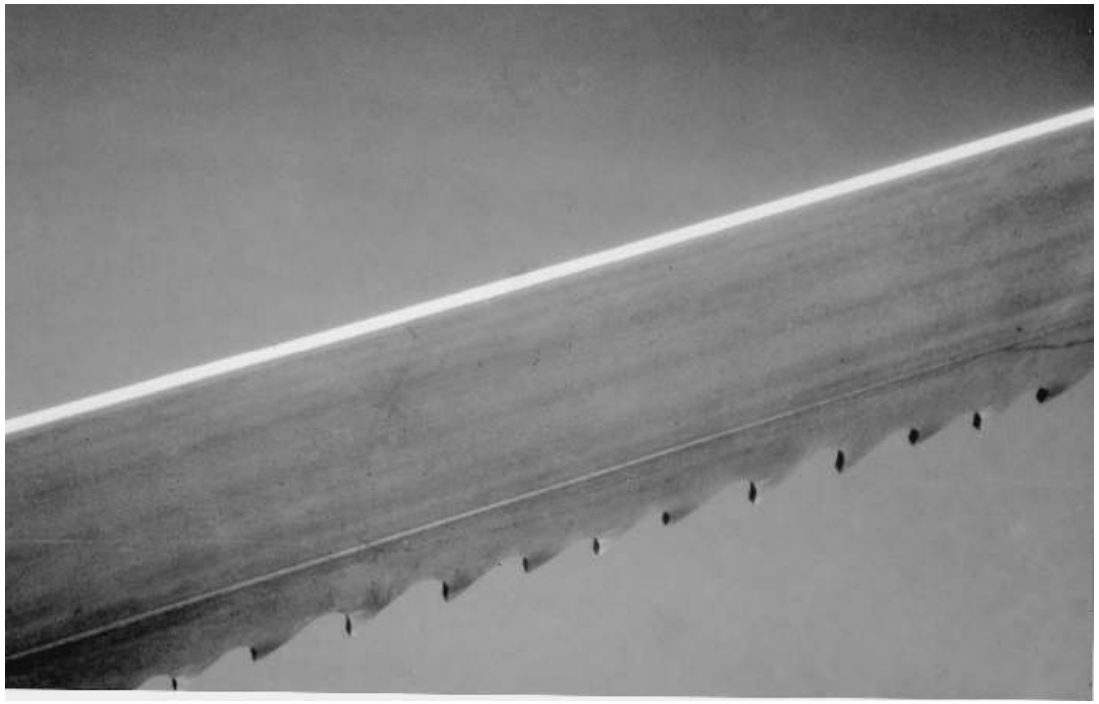
PROBLEMS & SOLUTIONS

TROUBLE SHOOTING - BI METAL

Heavy wear and/or swaging on back edge.



Heavy back edge wear will have a polished appearance or abnormal grooves worn into surface. Swaging of corners can also occur.

Probable Cause:

A. Excessive feeding rate.

B. Excessive back-up guide "pre-load".

C. Improper band tracking - back edge Rubbing heavy on wheel flange.

D. Worn or defective back-up guides.

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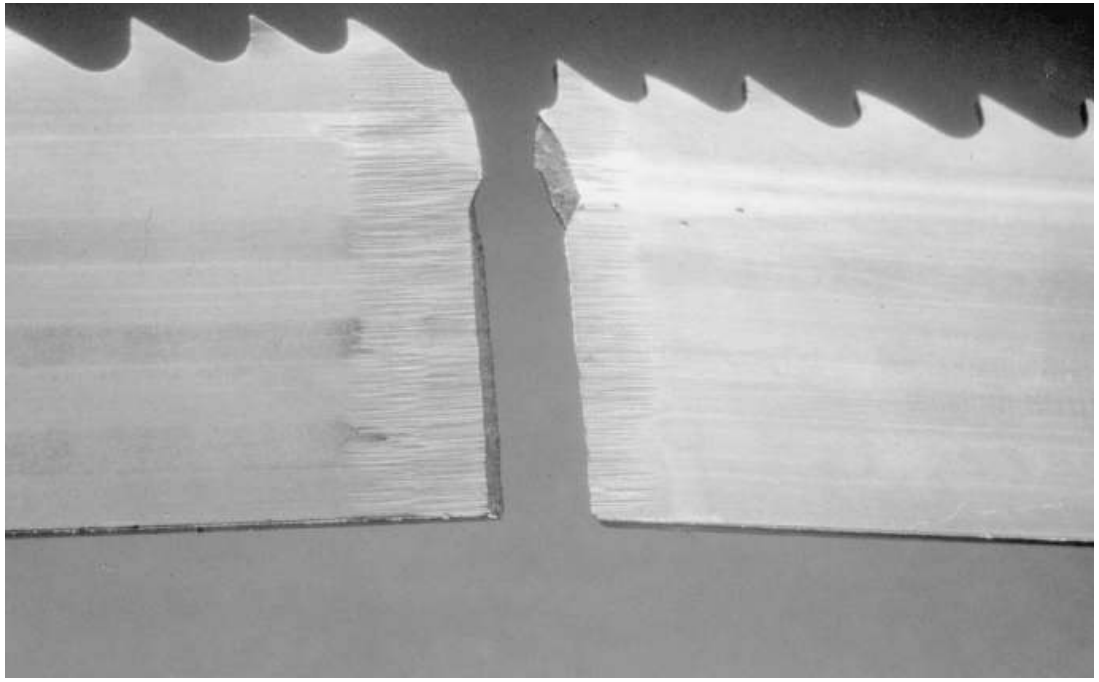
PROBLEMS & SOLUTIONS

Butt weld breakage.



To determine if the band broke at the weld, inspect the sides at the fracture to see if there are grind markings from the weld finishing process.

Probable Cause:

A. Any of the factors that cause body breaks can also cause butt weld breaks.

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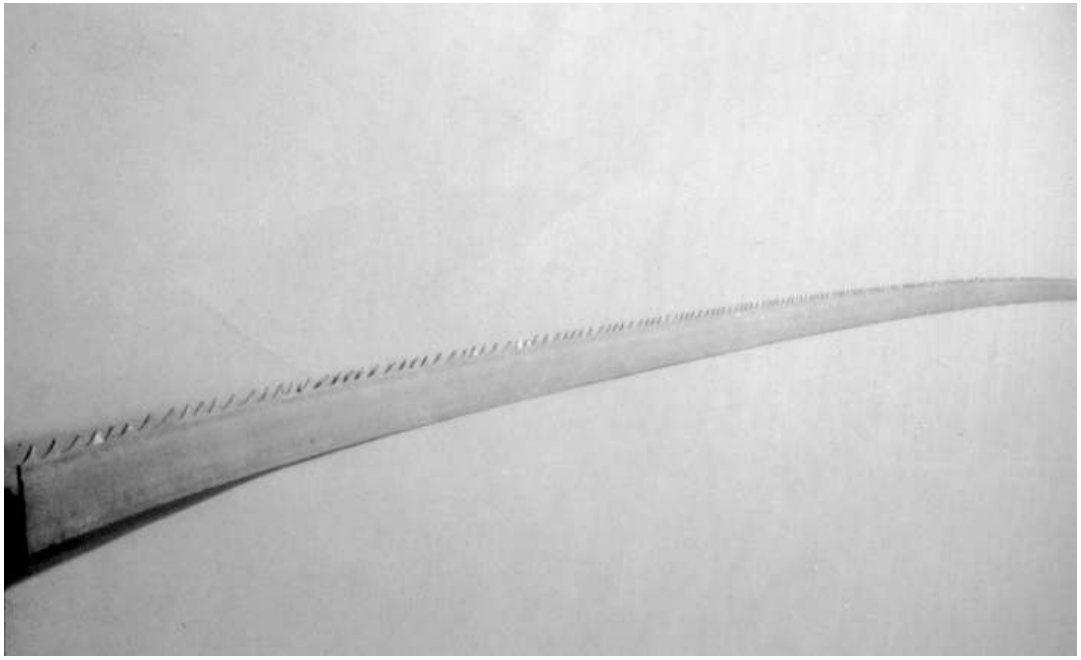
TROUBLE SHOOTING - BI METAL

Used band is "long" on the tooth edge.



"Long" on tooth edge is a term used to describe the straightness of the band. The teeth are on the outside of the arc when the strip is lying on a flat surface.

Probable Cause:

A. Side guides are too tight - rubbing near Gullets.

B. Excessive "preload" - band riding heavily Against backup guides.

C. Worn band wheels causing uneven tension.

D. Excessive feeding rate.

E. Guide arms are spread to maximum Capacity.

F. Improper band tracking - back edge rubbing heavy on wheel flange.

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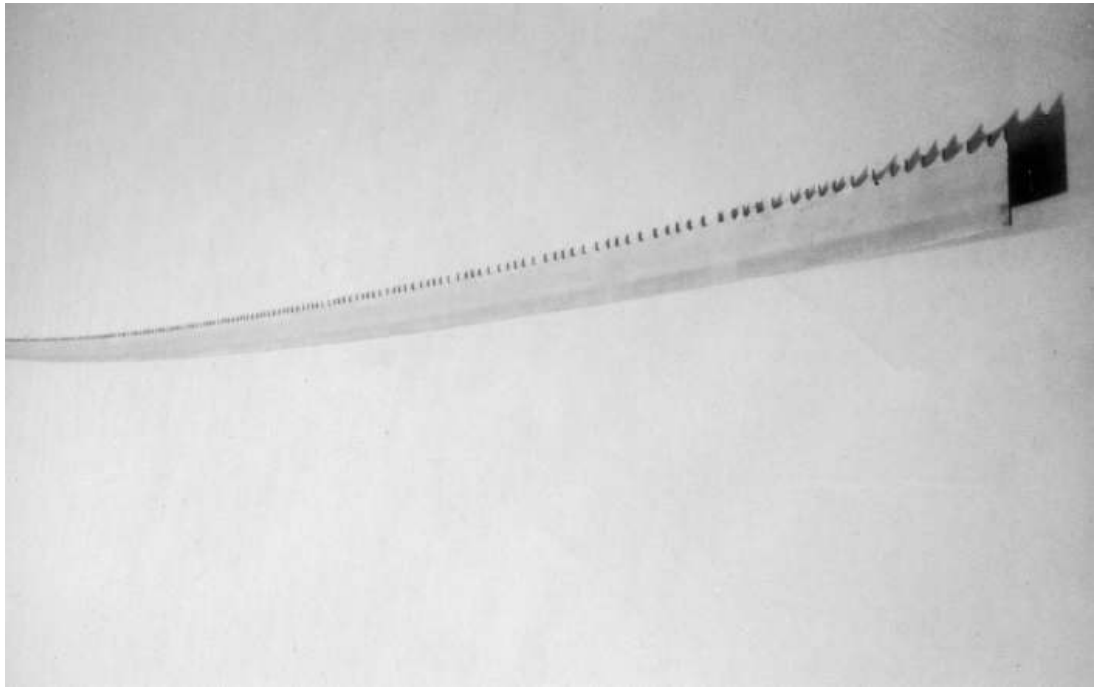
PROBLEMS & SOLUTIONS

TROUBLE SHOOTING - BI METAL

Used band is "short" on tooth edge.



"Short" on the tooth edge is a term used to describe the straightness of the band. The teeth are on the inside of the arc when the strip is lying on a flat surface.

Probable Cause:

A. Side guides are too tight- rubbing near back edge.

B. Worn band wheels causing uneven Tension.

C. Guide arms spread too far apart.

D. Excessive feeding rate.

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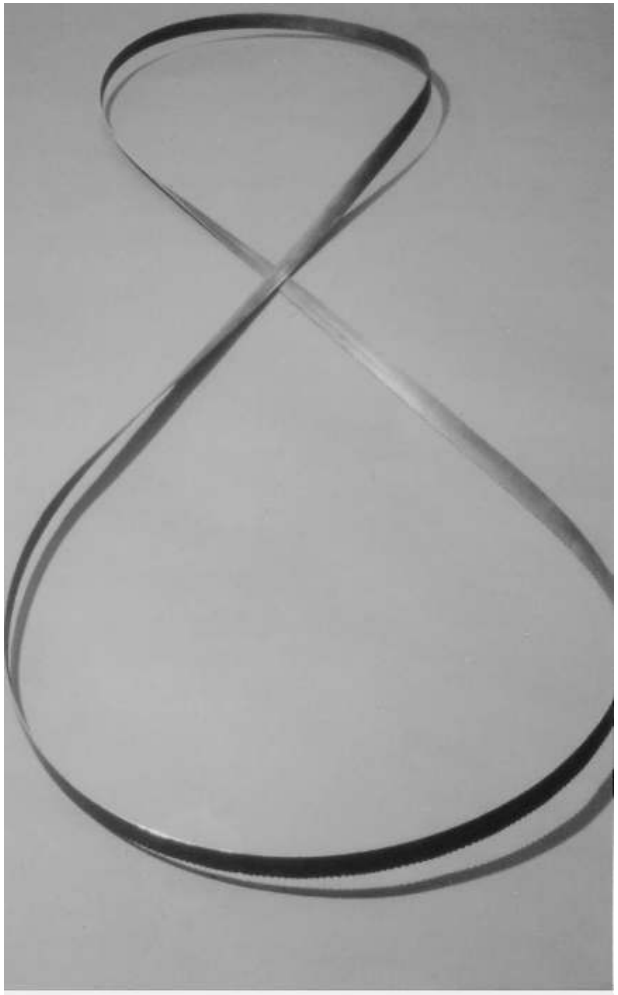
PROBLEMS & SOLUTIONS

TROUBLE SHOOTING - BI METAL

Band is twisted into a figure "8" configuration.



Probable Cause:

A. Excessive band tension.

B. Any of the conditions which cause the band to be long or short on tooth edge.

C. Cutting a tight radius.

The band does not retain its normal shape while holding the sides of loop together. This indicates the flatness has been altered during use.

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PROBLEMS & SOLUTIONS

TROUBLE SHOOTING - BI METAL

Broken band shows a twist in band length.

When a broken band Lying on a flat surface displays a twist from one end to the other, this indicates the band flatness has been altered during use.

Probable Cause:

A. Excessive band tension.

B. Any of the conditions which cause the band to be long or short on tooth edge.

C. Cutting a tight radius.

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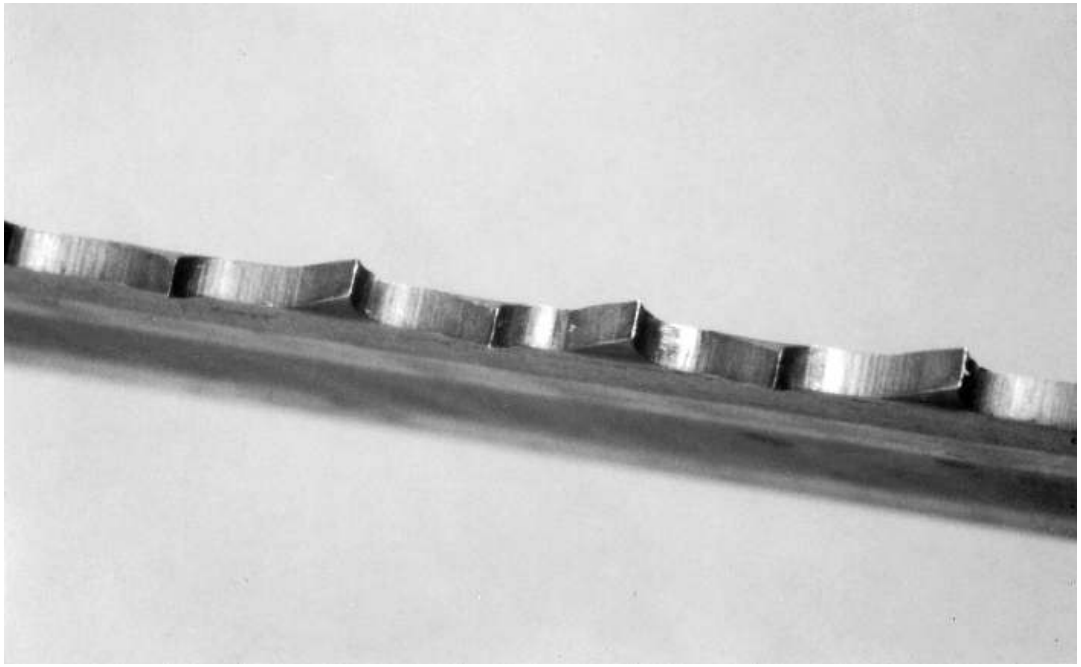
PROBLEMS & SOLUTIONS

TROUBLE SHOOTING - BI METAL

Heavy wear in only the smallest gullets.



Heavy wear in only the smallest gullets is an indication that there is a lack of gullet capacity for the chips being produced.

Probable Cause:

A. Excessive feeding rate.

B. Too slow of a band speed.

C. Using too fine of a tooth pitch for size of material being cut.

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