TO INFORM YOU

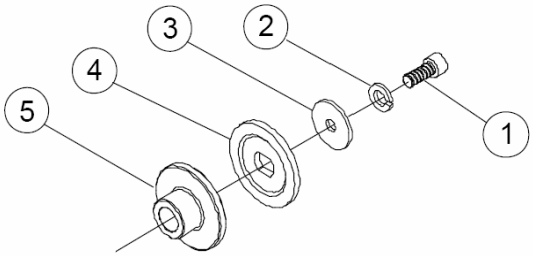
PRODUCT SUPPORT BULLETIN # 431

TO: AUTHORIZED *portable electric tool* SERVICE STATIONS
factory SERVICE / SALES SUPPORT BRANCH
SALES COMPANIES

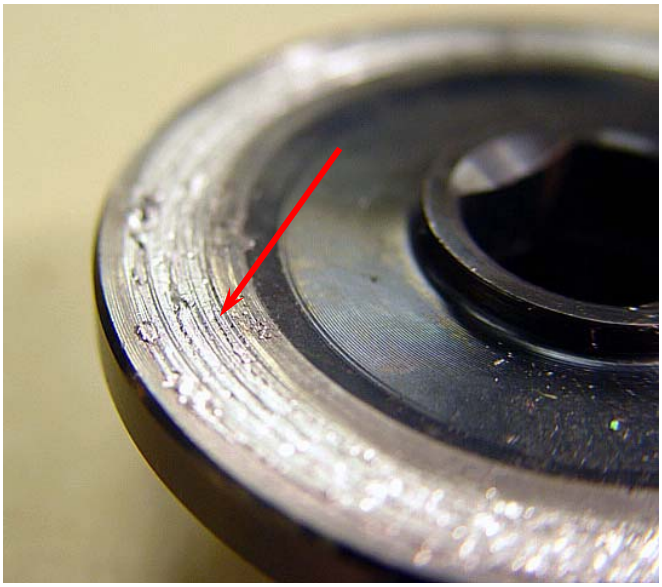
DATE: March 2005

TOOL(S) \ PRODUCT(S) AFFECTED: 6190-20 14" Dry Cut-off Machine

SUBJECT: Vibration – Galling- Pitting- Spalling of Inner / Outer Flange



The galling – pitting – spalling of the **43-34-0430 Inner Flange** [fig 5] and **Outer Flange 43-34-0425** [fig 4], as shown in the picture below, and to the 14" Dry-Cut Blade, is the result of the blade momentarily being stalled when-in-the-cut. The galling – pitting of the flanges and blade will cause blade wobble and a vibration **felt only while cutting**. The vibration is not present when the machine is just 'free-run'.



To eliminate the **vibration during the cut** **we recommend changing inner / outer flanges and 45-88-1365 Flat Washer [fig 3], if distorted and tightening the Socket Head blade retaining Screw 05-74-0040 an additional 1/4 turn 'past tight'**, to lessen the chance for blade stoppage when-in-the-cut.

Generally, the Dry Cut Blade **48-40-4505** 72 tooth (general purpose ferrous metal) carbide tipped blade or **48-40-4510** 90 tooth (light gauge ferrous metal) carbide tip blade can be re-used; any burrs or spalling present on the blade can be lightly sanded or filed down.

At each blade change the condition of the flanges and flat washer should be checked.

Please see reverse side for tips and techniques to optimize the cutting performance and blade life.

This bulletin is for informational purposes. PLEASE NOTE ON SERVICE PARTS LIST: 54-40-0925

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OPTIMIZING CUTTING PERFORMANCE

Tips and Techniques to Optimize the Cutting Performance and Blade Life of the 6190-20: 14" Dry-Cut Saw

Recommended materials that can be cut:	
• All mild steels	• Angle iron
• Flat bar	• Tubing
• Piping	• Commercial steel studs
• Metal threaded rods (non-hardened)	

Materials that are NOT recommended to be cut*	
⊘ Cast Iron	⊘ Rebar
⊘ Aluminum	⊘ All non-mild steel
⊘ Hardened or heat treated steel	

* Attempting to cut through these types of material will greatly reduce the life of the blade and tool. In some cases, such as rebar, cast iron and other hardened materials, the blade will not cut, causing damage to the blade and potentially the tool.

Recommended blade for material thickness:		
Blade	Gauge	Wall thickness
72 tooth blade	16 ga	3/16" and greater
90 tooth blade	18 ga	Less than 3/16"

Optimizing Cutting

1. Securely clamp the work piece in the vise.
2. Clamp work piece so the blade cuts the smallest section of the material.

3. Position the work piece forward of the center line of the blade.
4. Start to cut slowly, DO NOT force saw blade into work piece.
5. Gradually increase pressure during the cut to minimize the amount of sparks.
6. Optimal cutting will produce little or no sparks. Apply more pressure if sparks are present.

Optimal Cut Ranges and Cutting Times

MATERIAL	Suggested cutting time (seconds)
1" Sch 40 pipe	1.0 to 1.5
2" x 2" x 1/4" angle	2.0 to 3.0
2" x 1/4" wall tube	2.5 to 4.0
1/2" x 2" bar stock	2.0 to 3.0
3/4" solid round	1.5 to 2.0

The Variables of Blade Life

- Cutting too slow or improper feed rate.
- Material hardness.
- Material shape and size.
- Proper securement of the material.