TIM'S TECH TIPS

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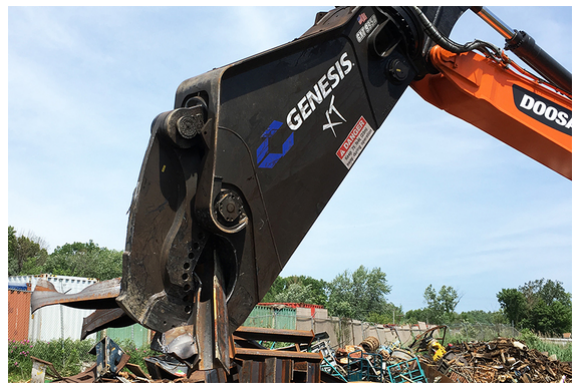
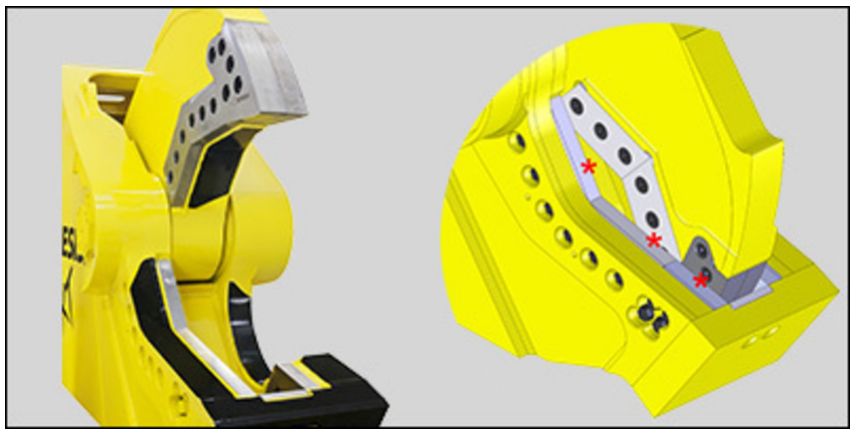
Chattering While Cutting

When a shear chatters during cutting, it's an indication material is jamming between the piercing blades and guide blades or between the upper and lower cutting blades. Worn blades and improper blade gaps are usually the culprit, so blade maintenance should be performed right away.



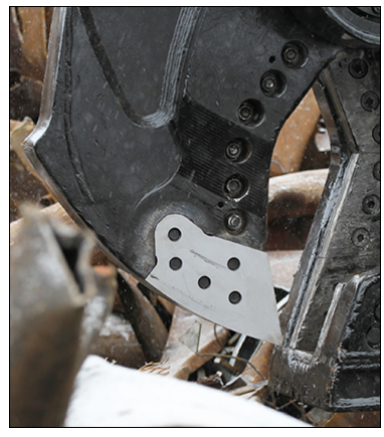
Insufficient gaps between the piercing blades and guide blades subject the blades and jaw parent material to thermal expansion from cutting friction. The tighter the blades run, the hotter they get and the more they expand.



Piercing blades and guide blades are the most susceptible to this and will show blue streaking on their faces. In some cases, they will get so hot that surface cracks and spidering occur. The heat and blade expansion also spread the lower jaw and increase the gaps between the primary and secondary blades, causing thin material to jam between them.

The opening between the guide blades is another key area to watch. Material that gets into this opening before the piercing blades enter is likely to wedge between the piercing blades and guide blades.

If a shear starts to chatter while cutting, the operator should back out of the cut and reposition at a different spot, and again, perform blade maintenance as soon as possible.



Encourage operators to pay attention to, and become familiar with, the sound and vibration associated with different types of jams as it will help them identify the cause and a solution.

It's important to note that because of the rod-to-bore ratios of displacement on the shear's hydraulic cylinder piston, the shear has half the force on jaw open than it does on jaw close. The implication of this is if the shear is jamming while closing, it won't have enough retract force to open.

If you have operating technique questions and would like to chat about jams, contact Tim at 218-349-5755, **talseth@genesisattachments.com**

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