



Grinding procedures for Scrap Choppers & Shear Blades

Regrinding these parts for maximum performance and minimal downtime, including setup, involves:

1. Use a hone to remove pick-up, high spots or slag off knives. If necessary a belt sander can be used if pick-up is excessive.
2. Dye penetrate check, Perform a visual analysis of the knife edge and if cracks are present it may be necessary to perform a dye penetrate test of the cutting edge.
3. If used input knife number into a computer tracking system to monitor knife vendor, hardness, regrind frequency, stock removal and reorder point notification.
4. Face grind to remove nicks or cracks, getting below “fatigue” layer. The coolant used for grinding is a water based mixture of other various chemical to reduce heat which is detrimental to cutting edge, and does cause distortion. It is also good to prevent possible oxidation of the surface of the knife.
5. Standard **Shear knives** are held parallel to within 0.001”/ft. and 0.003” overall. This is important for quality of cut and integrity of cutting edge. Parallelism directly affects the knife clearance and needs to be maintained.
6. Typical **Scrap choppers** are held parallel to within 0.0002”/foot and 0.0006” overall. This is important for quality of cut and integrity of cutting edge. Parallelism directly affects the knife clearance and needs to be maintained.
 - Selection of grinding stones used has evolved into a science, we will utilize either vitrified bond or ceramic stones to reduce heat and improve finish.
7. The edge or race is ground only if necessary and/or if the customer requires
Equal amounts of material are removed from each side to facilitate set up (shims).
8. All edges are hand-honed removing all burrs.
9. We inspect the knives and record information for historical reference.
10. Oil is applied to insure “rust” free parts.