

## Problem Cause

- Incorrect blade - teeth too coarse
- Blade tension too high
- Side guides too tight
- Damaged or misadjusted blade guides
- Excessive feed
- Incorrect cutting fluid
- Wheel diameter too small for blade
- Blade rubbing on wheel flanges
- Teeth in contact with work before starting saw
- Incorrect blade speed
- Teeth pointing in wrong direction / blade mounted backwards
- Improper or no blade break-in
- Hard spots in material
- Material work hardened
- Improper coolant
- Improper coolant concentration
- Speed too high
- Feed too light
- Teeth too small
- Tooth set damage
- Excessive feed pressure
- Improper tooth size
- Cutting fluid not applied evenly
- Guides worn or loose

Inaccurate Cut


- Insufficient blade tension
- Over-feed
- Insufficient blade tension
- Tooth set damage
- Guide arms loose or set too far apart
- Chips not being cleaned from gullets
- Teeth too small
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## Chip Welding

- Insufficient coolant flow
- Wrong coolant concentration
- Excessive speed and/or pressure
- Tooth size too small
- Chip brush not working
- Incorrect speed and/or feed
- Incorrect blade pitch
- Saw guides not adjusted properly
- Chip brush not working
- Work spinning or moving in vise
- Indexing out of sequence
- Material loose in vice


## Solution

- Use finer tooth pitch
- Reduce blade tension (see machine manual)
- Check side guide clearance (see machine manual)
- Check all guides for alignment/damage
- Reduce feed pressure
- Check coolant
- Use thinner blade
- Adjust wheel alignment
- Allow $1 / 2^{\prime \prime}$ clearance before starting cut
- Increase or decrease blade speed
- Install blade correctly. If teeth are facing the wrong direction, flip blade inside out
- Break in blade properly (Page 17)
- Check for hardness or hard spots like scale or flame cut areas
- Increase feed pressure
- Check coolant type
- Check coolant mixture
- Check recommended blade speed (Page 24-25)
- Increase feed pressure
- Increase tooth size
- Check for worn set on one side of blade
- Reduce feed pressure
- Check tooth size chart (Page 23)
- Check coolant nozzles
- Tighten or replace guides, check for proper alignment
- Adjust to recommended tension
- Reduce feed force
- Adjust recommended tension
- Check material for hard inclusions
- Position arms as close to work as possible. Tighten arms.
- Check chip brush
- Increase tooth size
- Check coolant level and flow
- Check coolant ratio
- Reduce speed and/or pressure
- Use coarser tooth pitch
- Repair or replace chip brush
- Check cutting chart (Page 24-25)
- Check tooth size chart (Page 23)
- Adjust or replace saw guides
- Repair or replace chip brush
- Check bundle configuration/adjust vise pressure
- Check proper machine movement
- Check vise or clamp

| Problem | Problem Cause | Solution |
| :---: | :---: | :---: |
|  | - Feed pressure too high <br> - Tooth stuck in cut <br> - Improper or insufficient coolant <br> - Incorrect tooth size <br> - Hard spots in material <br> - Work spinning in vise - loose nest or bundle <br> - Blade speed too slow <br> - Blade teeth running backwards <br> - Chip brush not working | - Reduce feed pressure <br> - Do not enter old cut with a new blade <br> - Check coolant flow and concentration <br> - Check tooth size chart (Page 23) <br> - Check material for hard inclusions <br> - Check clamping pressure - be sure work is held firmly <br> - Increase blade speed - see cutting chart (Page 24-25) <br> - Reverse blade (turn inside out) <br> - Repair or replace chip brush |
|  | - Excessive feed pressure <br> - Insufficient blade tension <br> - Back-up guide roll frozen, damaged, or worn <br> - Blade rubbing on wheel flange | - Decrease feed pressure <br> - Increase blade tension and readjust guides <br> - Repair or replace back-up roll or guide <br> - Adjust wheel cant |
| Rough Cut <br> Washboard surface Vibration and or chatter | - Dull or damaged blade <br> - Incorrect speed or feed <br> - Insufficient blade support <br> - Incorrect tooth pitch <br> - Insufficient coolant | - Replace with new blade <br> - Increase speed or decrease feed <br> - Move guide arms as close as possible to the work <br> - Use finer pitch blade <br> - Check coolant flow |
| Wear Lines, Loss of Set | - Saw guide inserts or wheel flange are riding on teeth <br> - Insufficient blade tension <br> - Hard spots in material <br> - Back-up guide worn | - Check machine manual for correct blade width <br> - Tension blade properly <br> - Check material for inclusions <br> - Replace guide |
| Twisted Blade <br> Profile sawing | - Blade binding in cut <br> - Side guides too tight <br> - Radius too small for blade width <br> - Work not firmly held <br> - Erratic coolant flow <br> - Excessive blade tension | - Decrease feed pressure <br> - Adjust side guide gap <br> - Use narrower blade <br> - Check clamping pressure <br> - Check coolant nozzles <br> - Decrease blade tension |
|  | - Incorrect blade <br> - Incorrect feed or speed <br> - Improper or insufficient coolant | - Use coarser tooth pitch <br> - Increase feed or decrease speed <br> - Check coolant flow |

