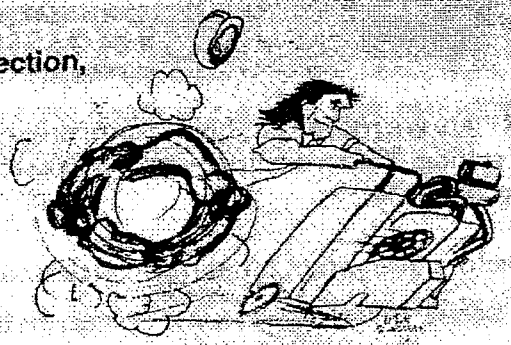
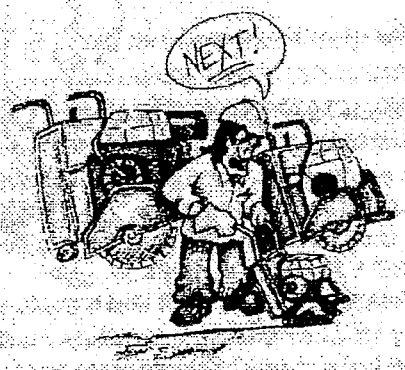
FLAT SAWING

Successful flat sawing is a combination of blade selection, blade speed and common sense.



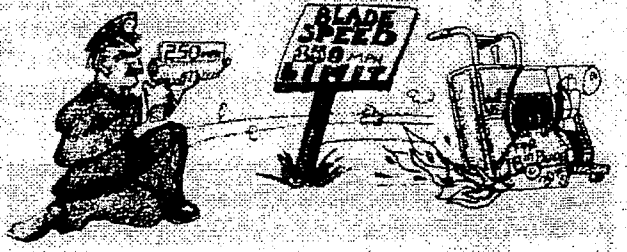
Pay Attention ! -The saw does not follow the cut itself- you have to guide it ! - Stay with the controls.

Water -is the blade's life and death. Don't be sparing with it . When road sawing keep the hose out of the traffic lane. Never gravity feed the water to the cut.

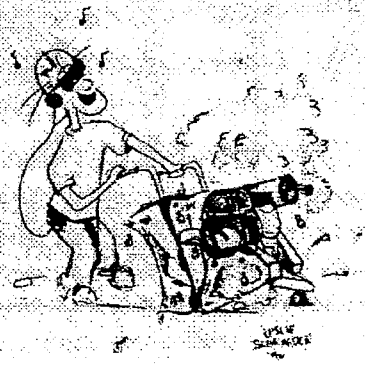


Always step cut - Make a 1" cut as your guide cut- Never cut full depth on the first pass.

Blade Speed -Always match the RPM of the saw to the diameter of the blade . Running a blade at higher than recommended speed is dangerous. At worst the blade could fly apart and at best it reduces cutting efficiency. The maximum cutting efficiency of a blade is at approximately 12,000 SFPM (surface feet per minute) or 150 Miles Per Hour. *PRODUCTIVITY IS NEVER INCREASED BY INCREASING BLADE SPEED !*



Listen to the engine- You'll be able to tell when a blade is bouncing, the belts are slapping (loose) and when the blade is lifting itself out of the cut.



RECOMMENDED BLADE RPM & MAXIMUM DEPTH OF CUT

Blade Diameter	Operating RPM	Blade Collar	Maximum Depth of Cut
14"	2900	4-1/2"	4-3/4"
16"	2600	4-1/2"	5-3/4"
18"	2600	4-1/2"	6-3/4"
20"	2450	4-1/2"	7-3/4"
24"	1950	4-1/2"	9-3/4"
26"	1950	4-1/2"	10-3/4"
30"	1650	6"	12"
36"	1400	6"	15"
42"	1050	6"	18"
48"	850	8"	20"
54"	775	8"	23"

Flat Sawing Safety

- Always check blade for missing segments or cracks could result in serious injury or even death
- When mounting blade on saw make sure that all power sources are shut down
- Flanges must be 1/6 the size of the blade that you are using
- Always use a blade guard
- Check all of saws controls before use
- Never use anchors to pull out pieces that are to big for the anchors capacity
- Never rely on the fourth side to support the piece after three cuts have been made
- Get maintenance done by qualified personnel
- Never us a flange that is worn or has any damage to it

Flat Sawing Procedures

- Clean saw after every use
- Grease all parts that require greasing
- Check drive belts regularly
- Check for loose nuts and bolts before every use
- Always make sure there is water pouring on to both sides of blade before cutting
- When cutting a lot of steal put saw in reverse to improve the cutting
- Inspect all chains
- Never over grease a saw could wreck the grease seal
- Check air filter daily

Flat Sawing

Date: March 2006

Flat sawing includes electric or gas-powered slab saws.

PPE: Safety boots, safety glasses, ear protection, hard hat (if necessary)

Task/Activity:	Potential Hazards	Recommended Procedures
1. Ensure all required equipment/tools are on vehicle before leaving shop		
2. Ensure area to be sawed has been clearly marked by others	a) piping or electrical hazards	a) ensure communication with job coordinator/customer before sawing
3. Walk around work area to check for any hazards	a) trips, slips, and falls	a) check surrounding area for any hazards before set-up
4. Rig equipment in to work area	a) slips, trips, and falls b) back injury	a) make sure path is clear of hazards b) follow proper lifting procedures
5. Rig power in to work area (electric flat saw)	a) electrocution b) trip hazards	a) ensure cable is not in traffic area
6. Inspect all equipment/tools before sawing	a) defects in blade	a) double-check all equipment before sawin
7. Securely fasten blade to saw	a) blade could jam/wedge b) personal injury	a) ensure the blade is tighly fastened to saw with wrench
8. Attach blade guard, make sure it clicks into place	a) personal injury	a) ensure that blade guard clicks into place, test for no movement
9. Ensure adequate flow of water	a) blade could jam up b) trip hazards	a) ensure hoses do not kink once water has been turned on b) ensure no leaks at source or at saw
10. Begin sawing, ensuring first pass is approx. 1/2' deep	a) if too deep, blade could jam or wedge into concrete	a) be aware of depth of blade at all times
11. When cutting steel, ensure slow and steady movement	a) blade could jam up if forced	a) cutting steel backwards prevents blade wear and jamming
12. Clean up work area of all debris and excess water	a) slips, trips, and falls	a) vacuum water and remove any debris
13. Concrete removal (if necessary)	refer to concrete removal sheet	
14. Removal of equipment	a) slips, trips, and falls b) back injury	a) ensure path is clear of obstruction b) follow proper lifting procedures
15. Job-site walkthrough, ensure customer has signed jobsheet	a) slip hazards b) forgotten equipment	a) ensure all debris/water has been cleaned up b) ensure all tools have been rigged out and put back on vehicle

flat saw operators must be trained and certified on proper set-up and operation
depending on concrete type and thickness, 2-3 passes should be made per cut