

Saw Cutting Syllabus

Time: 40 hours

Maximum Class Size: 12

Prerequisites: None

Course Description: It is important to know which tools and equipment can be used to achieve special concrete cuts on the jobsite. This course focuses on the different types of concrete saws, their uses and limitations, the types of jobs they should be used for and how to safely operate each type of saw. Blade types and their uses, proper equipment selection and inspection, hazards associated with cutting concrete and utility locating programs are covered. Heat stress prevention, hearing safety, interpreting SDS and personal protective equipment are emphasized. Ample time is given for hands-on practice so the participant achieves a basic level of proficiency using each type of equipment and making each type of cut.

Goals/Objectives/Student Learning Outcomes:

- Complete a walk-around inspection before and after each use.
- Demonstrate how to properly mount and dismount saws off of the back of trucks
- Identify and properly demonstrate how to use P.P.E.
- Check for utilities and underground piping
- Properly mount and align blades and guides.
- Demonstrate small engine safety (such as the dangers of engine exhaust).
- Show safe work practices for operating flat saws.
- Demonstrate a thorough knowledge in proper blade usage.
- Select the correct blade for various materials.
- Inspect blades for stress cracks, missing segments, glazing and undercutting.
- Complete a written exit exam with a score of 80% or above.
- Complete a hands-on skills assessment with a score of 80% or above.

Standards

- 29 CFR 1926.28 Personal Protective Equipment (P.P.E)
- 29 CFR 1926.59 Hazard Communications
- 29 CFR 1926.20 General Safety and Health Requirements
- 29 CFR 1926.21 Safety Training and Education
- 29 CFR 1926.300 Tools-hand and power, General Requirement
- 29 CFR 1926.52 Occupational Noise Exposure
- 29 CFR 1926.152 Flammable and Combustible Liquids
- 29 CFR 1926.150 Fire Protection

Saw Cutting Syllabus

- 29 CFR 1926.151 Fire Prevention
- 29 CFR 1926.55 Gas, Vapors, Fumes, Dust and Mists
- OSHA 29 CFR 1926.1153 Silica
- *Additional standards may apply when used in special construction activities such as demolition or tunnels and shafts.

Classroom Rules and Procedures

- All classes begin at 6:30 am and end at 3:00 pm
- Upon entering classroom, all participants must sign in and be seated by 6:30 am
- Class will consist of a combination of lecture, video, demonstration, coached group exercises, individual exercises and assessment.
- Students are required to report to class ready to work and maintain the provided PPE

Textbooks/Readings/Materials

- LIUNA *Sawing Concrete* IG/PG.
- LIUNA *Sawing Concrete* DVD
- LIUNA *Subpart E: Personal Protective Equipment* IG/PG
- LIUNA *Heat Stress* IG/PG/DVD
- LIUNA *Hearing Protection* IG/PG
- LIUNA *Small Engines: Operations and Maintenance* IG/PG
- LIUNA *Small Gas Engines* DVD
- LIUNA *Utility Locating Program* IG/PG
- Laptop with projector.
- Flip chart with tripod stand.
- Hand-outs: Martin Marietta Materials SDS (8 pages), The Clay Minerals Society SDS (2 pages), Vulcan SDS (5 pages), Portland Cement, How to Read a Tape Measure
- OSHA Silica Standard Handout

Tools/Equipment/Other Materials

- 30' tape measure
- String line
- Clear upside down paint
- 100' to 150' of water hose.
- P.P.E. hard hats, safety glasses, hearing protection, gloves and respiratory protection.
- Push broom
- 55 gal. Shop Vac.
- 200' of extension cords (100' twist lock and 100' of house hold connection)
- Twist lock adaptors

Saw Cutting Syllabus

- Diamond blades: 14", 16" and 24" a set of deep set blades ranges from 14" to 24".
- 14" adjustable crescent wrench.
- RPM Measuring instrument

Personal Protective Equipment

- 12 pairs of gloves
- 12 pairs of Safety Glasses
- 20 pairs of Ear plugs
- 12 hard hats

Course Requirements

To receive credit for the course, participants must:

- Be present for full forty hours
- Participate in all classroom exercises
- Pass a written exam
- Pass a hands-on exam

Course Policies

- Participants must be on-time and ready to work.
- Participants must return from breaks on-time.
- Participants must participate in each exercise and assignment
- Participants who are on "light duty" are not allowed to take this course due to the physically demanding requirements.

Assessment and Grading

Participants will be assessed on the following:

- All written exams must be passed with a score of 80% or above.
- All hands-on exercises are graded on performance and participation. They are pass/fail and must be passed with a score of 80% or above.

Safety

Failure to maintain and use PPE may result in dismissal from the course.

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