

CSDA SPECIFICATION



Title: Track Mounted Wall Sawing
Specification No: CSDA-W-104
Effective Date: Jun 1, 1998
Revised: Sep 4, 2007

1. Codes, Standards & Definitions

- 1.1. Occupational Safety and Health Administration - Safety and Health Standards Digest Construction Industry (OSHA) - 3149/1996).
- 1.2. ANSI B-7.1 and B-7.5 Standards.
- 1.3. The cutting contractor shall adhere to all applicable safety guidelines in accordance with Federal, State and local ordinances.
- 1.4. Definitions:
 - 1.4.1. Owner – Legal owner of the structure being cut.
 - 1.4.2. Contracting agency – The contractor hired directly or indirectly by the owner who is sub-letting the cutting requirements to a cutting contractor.
 - 1.4.3. Cutting contractor – The contractor hired to perform the actual cutting operation.
 - 1.4.4. Slurry – The liquid material comprised of water and cuttings generated when the owner's structure is cut using a water coolant.
 - 1.4.5. Embedments – Objects within or immediately adjacent to the cutting area that could be damaged during cutting. Examples of embedments are reinforcing rod and cable and utilities such as electrical power and telephone lines.

2. Prerequisites

- 2.1. Normal and customary equipment used on a wall saw job include:
 - 2.1.1. Provided by cutting contractor:
 - 2.1.1.1. Power unit
 - 2.1.1.2. Wall saw drive and carriage assemblies
 - 2.1.1.3. Wall saw rails or track
 - 2.1.1.4. Diamond blades and guards
 - 2.1.1.5. Wall saw mounting supplies, hand tools and miscellaneous equipment pertinent to a particular wall saw
 - 2.1.1.6. Equipment necessary to cut back-side corners if required if no over cuts are specified. i.e. core drill, chain saw, hand saw, etc.
 - 2.1.1.7. Supplies to shore or hold openings securely in place after cutting
 - 2.1.2. Provided by owner or contracting agency:
 - 2.1.2.1. Plastic sheeting
 - 2.1.2.2. Scaffolding for personnel access
 - 2.1.2.3. Storage containers for water or slurry
 - 2.1.2.4. Shoring, scaffolding, rigging and rigging equipment for managing the piece to be removed
 - 2.1.2.5. Sump area and sump pump

- 2.2. It is the responsibility of the owner or contracting agency to have the location of the area to be cut reviewed, approved and all cut lines clearly marked prior to the start of any cutting operation. A determination should be made by the owner or contracting agency as to whether over cuts are allowed. In addition, it is the responsibility of the owner or contracting agency to clearly mark the location and type of all embedments both on the cut lines and near the cutting area.
- 2.3. It is the responsibility of the owner or contracting agency to provide water and power for the cutting contractor.
- 2.4. It is recommended that a pre-job meeting be held with the owner or contracting agency to determine the following information relating to steel reinforcing bar or other embedments:
 - 2.4.1. Are there steel reinforcing bars or other embedments within the structure to be cut?
 - 2.4.2. What is the size and location of the steel reinforcing bars or other embedments?
 - 2.4.3. Is it permissible to cut the steel reinforcing bars or other embedments in the course of the sawing operation?
 - 2.4.4. Is it possible to lay out the cut line in such a way that minimizes or avoids the cutting of the steel reinforcing bars or other embedments?
 - 2.4.5. After cutting begins, is it permissible to move the cut line to stop splitting a steel reinforcing bar or embedment?
- 2.5. Any scaffolding required by the owner, contracting agency or cutting contractor shall be designed, provided by and erected by competent personnel and according to code requirements.
- 2.6. The owner or contracting agency must determine if there are utility lines contained within, adjacent to or secured to the structure being cut. If utility lines are present as described, the owner or contracting agency must take the necessary action to have all services for these utilities cut off. If the utilities are buried, the owner or contracting agent must call the appropriate agency for accurate utility location as state or local regulation may require. The cutting contractor must be named on the permit.
- 2.7. If the owner or contracting agency directs that an embedment be intentionally cut whether or not service is turned off, then the owner and contracting agency shall protect the cutting contractor from all claims for damages arising from the cutting of the embedment.
 - 2.7.1. If the layout provided by the owner or contracting agency causes an embedment to be unintentionally cut, then the owner and contracting agency shall protect the cutting contractor from all claims for damages arising from the cutting of the embedment.
- 2.8. It is the responsibility of the owner or contracting agency to provide protection to persons and property from potential water or slurry damage. The cutting contractor shall not be deemed an owner or generator of slurry and the owner and contracting agency shall protect the cutting contractor from all loss and expense associated with such claims.
- 2.9. The owner or contracting agency shall be responsible for providing proper, safe, and appropriate disposal of slurry.

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- 2.9.1. Collection and disposal of the slurry must be planned for by agreement with the owner or contracting agency before work commences.
- 2.10. Adequate safety provisions must be provided by the owner or contracting agency to protect the operator's work area, as well as below, above, and adjacent to the area being cut.
 - 2.10.1. The owner or contracting agency shall provide safe access to and from the work area.
 - 2.10.2. Barricades, cones, warning tape or other devices used to keep unauthorized people out of the work area shall be provided by the owner or contracting agency.
- 2.11. The owner or the contracting agency shall be responsible for the design and installation of any bracing or shoring required to make sure that the material being sawed free is supported in a safe and effective manner so that when the piece is cut free, it is retained in place, causing no damage to persons, equipment or adjacent structures.
- 2.12. The owner or contracting agency shall isolate or protect the other structures or facilities that are part of or adjacent to the structure being cut.

3. Sawing Set-up Procedures

Except when the cutting contractor determines that any of the following steps do not apply to a particular work or that other steps are appropriate:

- 3.1 Install the appropriate number of anchors according to the anchor manufacturer's installation instructions as well as the wall saw manufacturer's installation instructions.
- 3.2 Make sure the tracks are securely attached to the wall by the anchors through hold-down plates or brackets and/or according to the wall saw manufacturer's instructions.
- 3.3 Inspect the complete saw including the roller assembly and blade guard for damage or improper functioning before applying the saw to the track. Repair or replace as required.
- 3.4 Clean and inspect the blade flanges and arbor for damage before mounting any blade. Repair or replace as required.
- 3.5 Inspect any air, hydraulic, electric or water lines or cords attaching to the wall saw for proper condition and fit. Repair or replace as required.
- 3.6 Should bracing of the concrete section to be removed be required, it must be installed prior to the completion of the sawing operation. If cut piece to be removed is to stay in place for an extended period, adequate support is required. The owner or contracting agency shall provide all bracing and engineering required for safe removal unless otherwise agreed to in writing by the cutting contractor. Wedging is not acceptable as a bracing technique.
- 3.7 Inspect diamond blade for the condition of the segments and core. Do not use the blade if any of the following conditions exist: core cracks, missing or broken segments, loss of tension or any other condition as mentioned in the blade manufacturer's instructions.

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- 3.8 Check to confirm that the blades are of a proper specification for the material being cut.

4. Cutting Operation

Except when the cutting contractor determines that any of the following steps do not apply to a particular work or that other steps are appropriate:

- 4.1 When needed, place partitions or screens between wall saw operations and the personnel area to prevent any flying objects from contacting any worksite personnel.
- 4.2 Allow no personnel to be in-line with the blade while it is rotating.
- 4.3 On applications requiring a bottom horizontal cut, sequence the cut or shore the work piece so that the weight of the work piece is prevented from jamming, pinching and/or crushing the diamond blade.
- 4.4 Blades and blade guards should be properly fastened to the saw as per the saw manufacturer's specifications.
- 4.5 The saw should be operated according to the saw manufacturer's specifications.
- 4.6 Before commencing sawing operations, determine whether the piece being removed needs to be cut into smaller, more manageable pieces.

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