Concrete Deadman Anchors - Model: Z2CDA

Anchor Capacity: 5,000lb. **Unit Mass Weight:** 5,160lb. **Lifting Point WLL:** 7,320lb.

Receiver Hitch Capacity: 3,000lb. **Drawing:** SB01 **Engineered by:** Gregory L. Menning, PE

The Concrete Deadman Anchor is a movable anchoring system designed and engineered to provide an available connection around excavations as part of a fall protection system. These units also feature a provision for a Davit arm retrieval system, utilizing a hitch-mount Davit arm base.

WARNING

Work tasks that expose personnel to falls may be extremely hazardous.

1. **A Competent Person, designated by the employer, is responsible for evaluating and supervising operations. This includes ensuring compliance with OSHA standards and overseeing areas such as free fall, free fall distance, deceleration distance, device failure, and other equivalent measures.**

2. **A Qualified Person is required to supervise fall protection systems that:**
   - **Utilize a safety factor of two as an acceptable alternative to the 5,000lb requirement, as specified in [1926.502(d)(15)].**
   - **Involve the installation of a horizontal lifeline, as outlined in [1926.502(d)(8)].**

3. **Personnel using fall protection (Users) must:**
   - **Receive training per OSHA standards before performing tasks that expose them to fall hazards.**
   - **Do not allow personnel to be exposed to a fall hazard without training.**
   - **Adhere to the user instructions.**

4. **Comply with the manufacturer's instructions or requirements for all safety devices that will be attached or connected.**

General Use Safety Rules

I. **The competent person must inspect the Concrete Deadman Anchor and any accessories to ensure it is in safe working condition before or after a fall event. Inspect:**
   a. All four fall protection anchors for damage, deformities, or cracking in the surrounding concrete.
   b. Concrete block for visible structural damage.
   c. The lifting anchor for any damage, deformities, or cracking in the surrounding concrete.
   d. The removable coil tie bar cleats for any damage, excessive wear, or bending.
   e. Rescue receiver hitch and hitch pin for damage, deformation, cracked welds, or cracks in the anchor's surrounding concrete.
   f. Missing or illegible data plate.
   g. Missing or illegible instructions.

II. **Follow all forklift manufacturer requirements and OSHA standards when lifting the Concrete Deadman Anchor.**

III. **Follow the rigging manufacturer's requirements and OSHA standards when lifting the Concrete Deadman Anchor.**

IV. **The lifting point at the top of the Concrete Deadman Anchor shall not be used as part of a Personal Fall Arrest System.**

V. **The leading edge of the Concrete Deadman Anchor must be placed:**

a. At least 6ft away from the edge of the fall hazard;
b. to have the anchor points face the fall hazard when used with Personal Fall Arrest Systems;
c. on ground capable of holding at least twice the weight of the Concrete Deadman Anchor plus any forces generated by falls;
d. on level ground or may be placed on ground sloping down and away from the edge of the fall hazard, no more than 8 °. Never place the unit on ground that slopes towards a fall hazard.

VI. **Using the coil tie bar cleats with this unit on the penetrable ground.**

a. The competent person may determine if the coil tie bar cleats must be used.
b. Store in the document carrier with the user instructions.
c. Do not stand directly under the Concrete Deadman Anchor to install the coil tie bar cleats.
d. Remove and store the coil tie bar cleats for transport; otherwise, the cleats andtransport trailer will be damaged, and the unit will not be properly secured for transport.
e. Do not use the coil tie bar cleats on hard surfaces, such as concrete or asphalt.

VII. **When connecting directly to the Concrete Deadman Anchor by using the Personal Fall Arrest System:**

a. Use a Class 2 self-retracting lifeline (SRL) compliant as a connecting device with current OSHA and ANSI Z359.14 standards for the fall hazard leading edge.

b. The user must maintain horizontal travel within 15° of the center of the Concrete Deadman Anchor along the plane of the fall hazard.

c. Up to four users can anchor to a single Concrete Deadman Anchor, provided they work in pairs and face opposite directions. The Concrete Deadman Anchor should be strategically placed between the two opposing fall hazards to ensure safety.

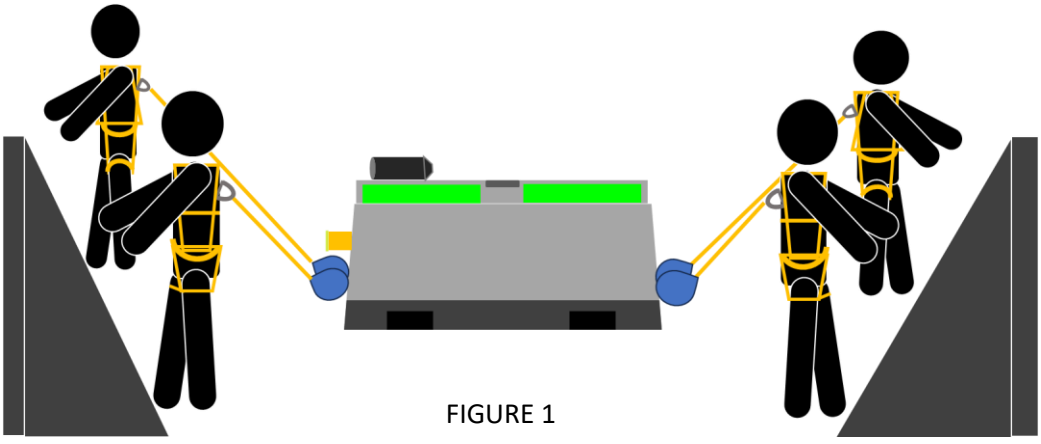


FIGURE 1

d. When exposed to the same fall hazard, two users may anchor to the Concrete Deadman Anchor per side using Personal Fall Arrest Systems (PFAS).

Overhead Views

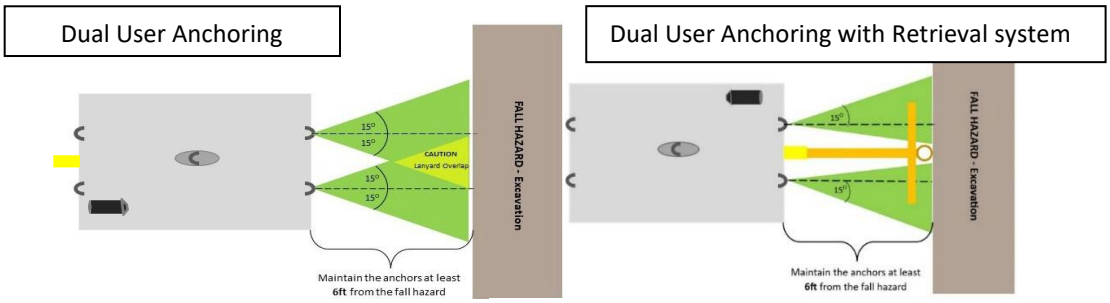


FIGURE 2

e. When using a horizontal lifeline:

1. Comply with manufacturer and OSHA standards.
2. Shall be designed, installed, and used under the supervision of a qualified person as part of a complete personal fall arrest system that maintains a safety factor of at least two.
3. It must not be used in a manner that will surpass the anchor's capacity.
4. The Concrete Deadman Anchor should never be used in a way that risks it losing its downward grip on the ground. There is a potential danger that it could slide towards users or nearby personnel while arresting a user during a fall.

VIII. Using a Fall Restraint System:

a. The connection device must never allow the user to step over the edge of the fall hazard.

b. Four users may be protected by the fall restraint system and work along the same fall hazard edge.

c. The fall restraint system may protect more than four users and work along the same fall hazard edge when using a horizontal lifeline. The competent person must not allow multiple users to work in a manner that may create a hazard.

IX. A site-specific rescue plan should be in place and communicated.

a. If the Concrete Deadman Anchor is equipped with a receiver hitch, the Concrete Deadman Anchor is compatible with the tow hitch-weighted type Davit arm bases.

b. One side of the Concrete Deadman Anchor has a receiver hitch to accommodate a davit arm base designed to be attached to a vehicle tow hitch.

1. Comply with all manufacturer instructions for the Davit arm base.
2. Ensure the Concrete Deadman Anchor is level on the ground to allow the Davit arm base to slip into the receiver smoothly and be securely positioned.
3. When using a Davit arm base for rescue, the connector or SRL must **never** be used in a manner that allows the Davit arm to be sideloaded in a fall event by the lanyard or connector.
4. This side accommodates a two-person rescue team, with one rescuer operating the retrieval wench and the second rescuer aiding in the safe retrieval of the victim while providing fall protection or fall prevention.

5. The employer must provide training to ensure the two-person retrieval team members will effectively and safely perform a rescue, along with corresponding emergency response procedures.



FIGURE 3



FIGURE 4

c. The competent person must inspect all rescue components and follow the manufacturer's instructions.

X. Users must comply with any federal, state, and local standards that regulate the use of this Concrete Deadman Anchor.

XI. Although the Concrete Deadman Anchor system can be used in a Traffic Control Work Zone, the Concrete Deadman Anchor is not crashworthy under FMUTCD regulations; therefore, DO NOT place it in a location exposed to motorists outside the protection of a Traffic Control Work Zone.

XII. The user must comply with the Concrete Deadman Anchor instructions and load capacity limitations.

XIII. NEVER allow anyone under a suspended load

XIV. NEVER use this Concrete Deadman Anchor in a manner that becomes a hazard to any personnel.

Note: If you have any questions regarding the suitability of this Concrete Deadman Anchor for an application not mentioned in these instructions, contact Industrial Safety Solutions, LLC for additional guidance.

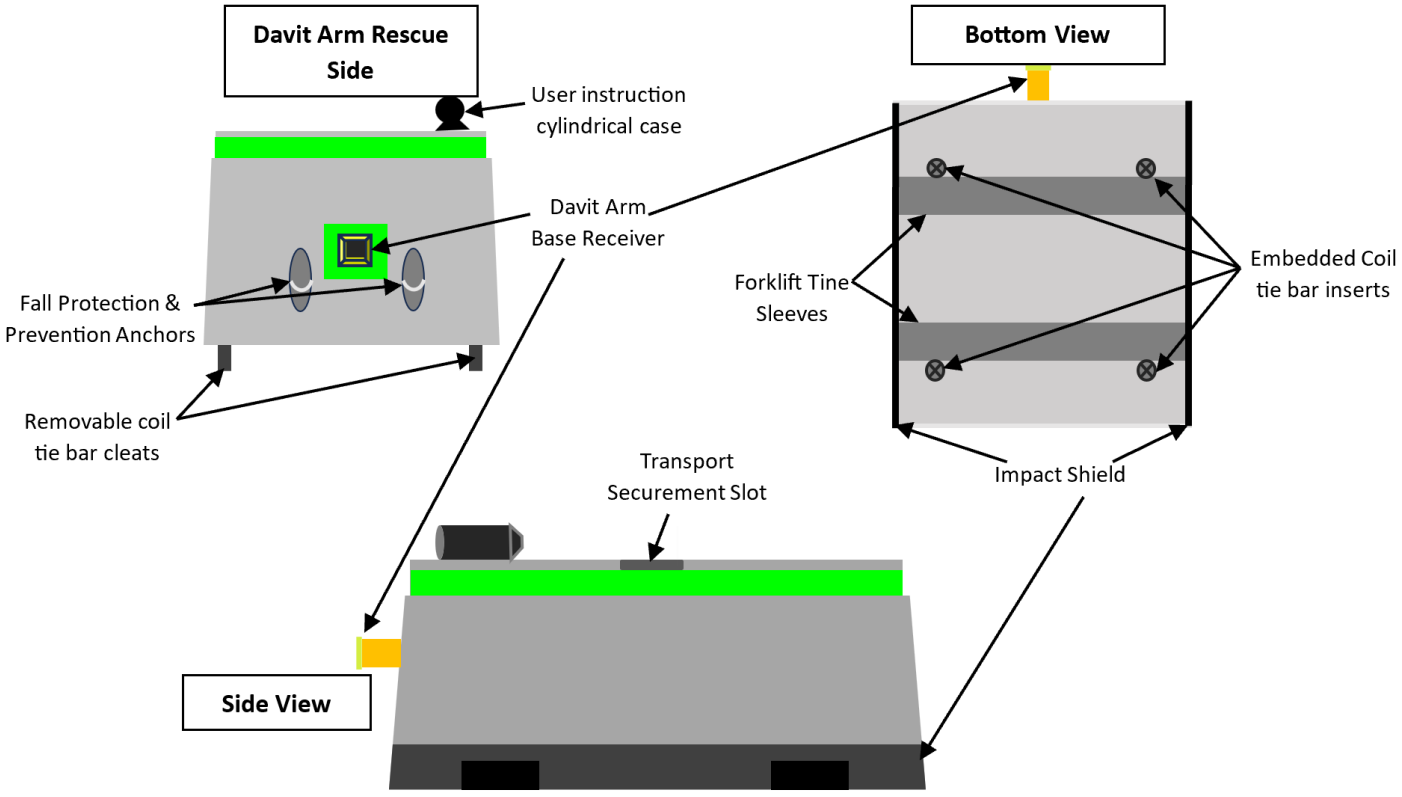


FIGURE 5



Z2CDA Data Plate:

Z-TEX Safety, LLC

P.O. Box 657, Elgin, TX USA - Ph: 833-919-ZTEX - www.ztexsafety.com

The employer directing the use of this unit, or User, is required to comply with manufacturer instructions, applicable federal, state and local safety standards.

Model Number	**Block Weight**
Z2CDA	5,160Lbs
Fall Protection Anchor Capacity	**Lifting Anchor WLL**
5,000Lbs	7,320Lbs
Engineered by	**Drawing Number**
Gregory L. Menning, PE	SB01

- The minimum concrete deadman anchor block weight shall be 4,900Lbs.
- This unit must be placed at least 6ft away from the fall hazard.
- Only use Self Retracting Lifelines (SRL's) designed for leading edge work when connecting to this unit as part of a complete Personal Fall Arrest System (PFAS).
- 5,000 pounds applied to each utility anchor on one end is the minimum force necessary to overturn the block about its leading edge.
- The unit's leading edge must be prevented from moving horizontally, and the block shall be on level ground.

Z2CDA Concrete Deadman Anchor
Monthly Safety Inspection Log

Company Name:_____ Model: Z2CDA Serial #: _____

Drawing #: SB01 Anchor Capacity: 5,000 lb Unit Weight: 5,160 lb

Lifting Point WLL: 7,320lb Manufacturer: Industrial Safety Solutions, LLC

Monthly Inspection Checklist Key Points

☐ Anchor points secure

☐ No cracks in the concrete surrounding the anchors

☐ Lifting point undamaged (not used as PFAS)

☐ Receiver hitch/welds intact

☐ Receiver hitch damage

☐ Coil tie bar cleats in good condition

☐ Instruction placard legible

☐ Proper placement (level, ≥6 ft from edge, correct slope)

☐ Site-specific rescue plan in place

☐ Davit arm components inspectable (if used)

Month	Date	Inspector (Name & Initials)	PASS/FAIL	Notes/Corrective Actions
January	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
February	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
March	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
April	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
May	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
June	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
July	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
August	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
September	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
October	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
November	___/___/ ___	_____	☐ PASS ☐ FAIL	_____
December	___/___/ ___	_____	☐ PASS ☐ FAIL	_____

