

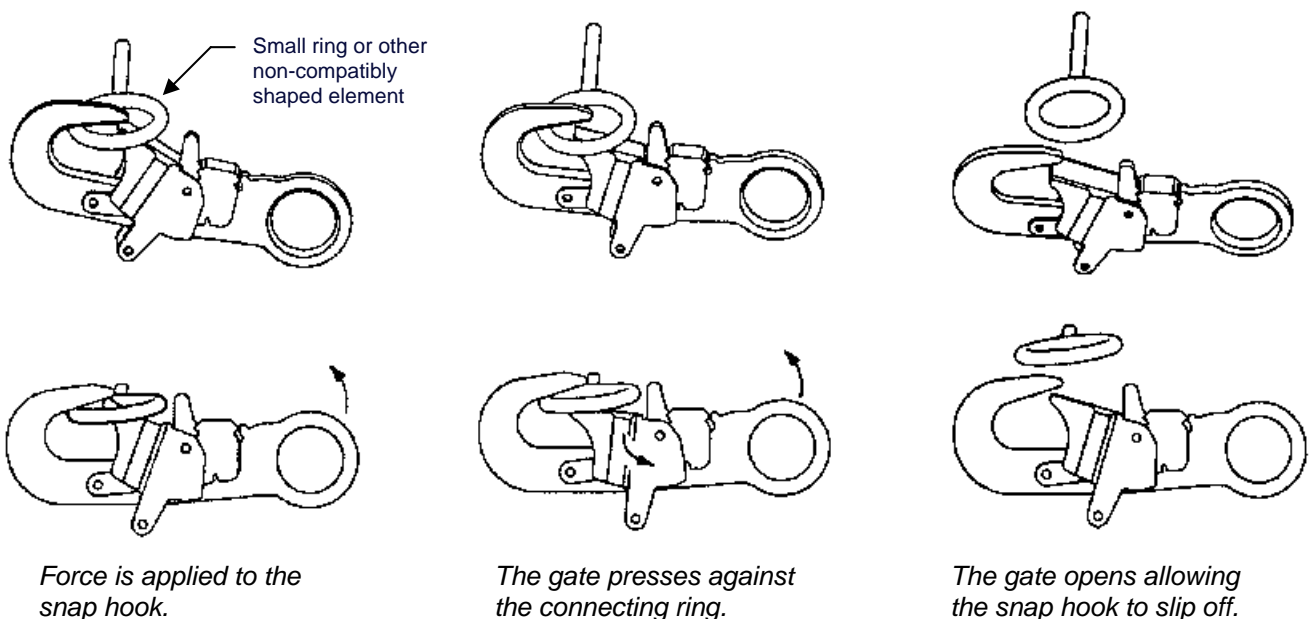
Technical Bulletin

MISC004, Rev. B

Subject: Compatibility of Fall Protection Equipment

Compatibility refers to the harmonious operation between individual elements, as well as component subsystems. Typically the size and configuration of snap hooks, carabiners, d-rings and anchorage connectors are considered when addressing compatibility issues. Connectors are considered to be compatible with connecting elements when they have been designed to work together in such a way that their sizes and shapes do not cause their gate mechanisms to inadvertently open (rollout) regardless of how they become oriented. Do not use equipment that is not compatible.

If the connecting element that a snap hook (shown) or carabiner attaches to is undersized or irregular in shape, a situation could occur where the connecting element applies a force to the gate of the snap hook or carabiner. This force may cause the gate (of either a self-locking or a non-locking snap hook) to open, allowing the snap hook or carabiner to disengage from the connecting point.



DBI/SALA recommends equipment from one manufacturer be used as a system to help assure compatibility. DBI/SALA equipment is designed for use with DBI/SALA approved components and subsystems only. Substitutions or replacements made with non-approved components or subsystems may jeopardize compatibility of equipment and may effect the safety and reliability of

the complete system. Fall protection systems assembled from components and subsystems made by different manufacturers should only contain components that meet the requirements of applicable fall protection standards, such as *ANSI Z359.1-1992; Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components*. Only use self locking snap hooks and carabiners. Self locking snap hooks and carabiners are required by ANSI Z359.1 and OSHA.

Compatibility between elements and components (i.e., body supports, connecting components, anchorage connectors and anchorage points) of a fall protection system are critical to help assure safety to the user.

Specific guidelines to follow when addressing compatibility issues include:

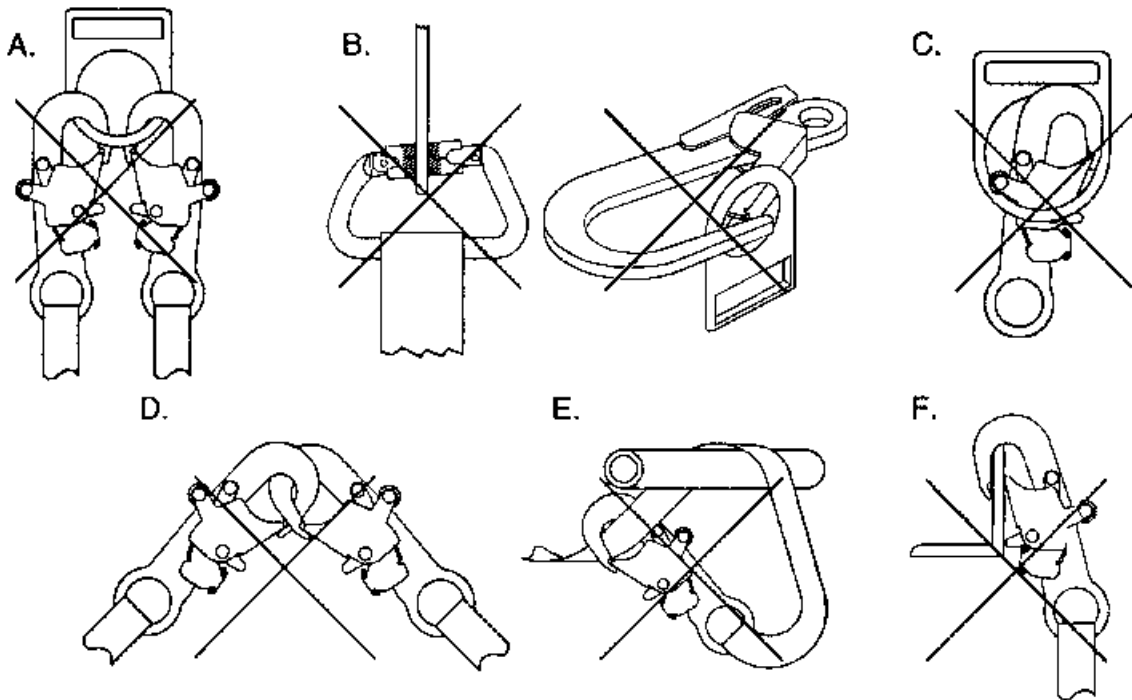
1. Read and understand all user instructions for the equipment involved.
2. The respective manufacturers shall be consulted and, if necessary, perform the testing required by ANSI Z359.1-1992.
3. Non-compatible connectors may unintentionally disengage. Snap hooks and carabiners shall be compatibly matched to their associated connector to reduce the possibility of rollout. Connectors must be compatible in size, shape, and strength.
4. Snap hooks and carabiners shall be securely closed and locked once coupled to a connector.
5. The stability and compatibility of couplings between anchorage connectors and anchorage points shall be considered when selecting anchorage points and anchorage connectors. Connectors must be compatible with the anchorage or other system components.
6. DBI/SALA connectors (snap hooks and carabiners) are designed to be used only as specified in each product's user's instructions. Use connectors that are suitable to each application.
7. Connectors shall be suitably sized and configured to interface compatibly with other connectors they will be attached to.
8. Connectors (hooks, carabiners, and D-rings) must be capable of supporting at least 5,000 lbs. (22kN).
9. Fall Arrestors (rope grabs) shall be analyzed for compatibility with the lifeline it operates on.
10. Other factors to consider when looking at compatibility issues include impact forces, swing fall hazards, total fall distances, and free fall distances.

DBI/SALA snap hooks and carabiners should not be connected:

- A. To a D-ring to which another connector is attached.
- B. In a manner that would result in a load on the gate.

NOTE: Large throat opening snap hooks should not be connected to standard size D-rings or similar objects which will result in a load on the gate if the hook or D-ring twists or rotates. Large throat snap hooks are designed for use on fixed structural elements such as rebar or cross members that are not shaped in a way that can capture the gate of the hook.

- C. In a false engagement, where features that protrude from the snap hook or carabiner catch on the anchor and without visual confirmation seems to be fully engaged to the anchor point.
- D. To each other.
- E. Directly to webbing or rope lanyard or tie-back (unless the manufacturer's instructions for both the lanyard and connector specifically allow such a connection).
- F. To any object which is shaped or dimensioned such that the snap hook or carabiner will not close and lock, or that roll-out could occur.



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