

## SWING RADIUS FOR FALL PROTECTION

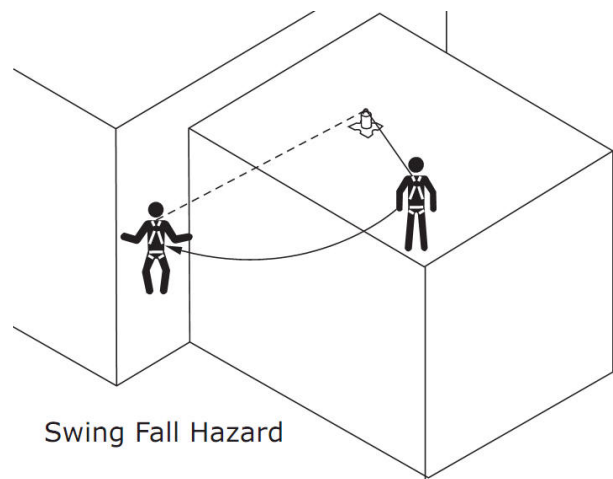
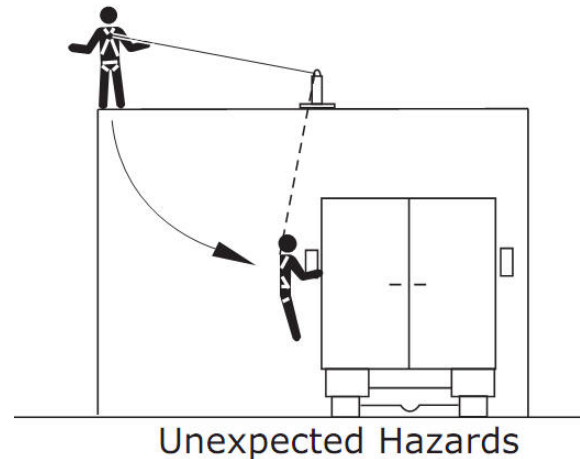
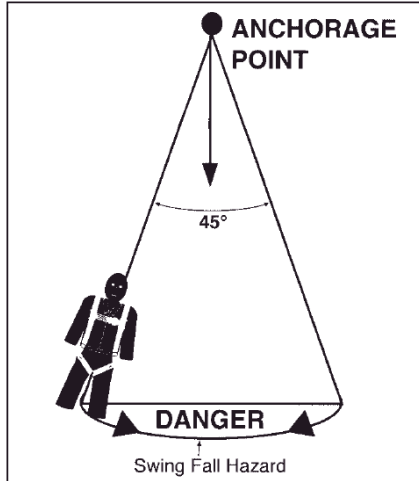
When rigging for fall protection (or fall restraint when working on roofs), keep the tie-back in a straight line (or within 15 degrees) from the anchor point, which must be capable of supporting a load of at least 5,000 pounds.

If for any reason you fall from either a roof, scaffold or Rope Descent System, your personal fall arrest system (full body harness, lanyard and rope grab) is there to insure that you do not fall farther than 2-3 feet. It is very important to keep the rope grab elevated at or above shoulder height so freefall distances do not exceed 2-3 feet.

If you are not hanging directly in line with your anchor point, you will swing like a pendulum. In the diagrams below, it shows a worker working at an angle away from his tie-back. As he falls over the edge, the safety line will not catch him until he is directly in line with the anchor point. This is a very hazardous condition which could result in a worker hitting an unexpected object during this swinging motion and injure that worker. The freefall impact on the worker falling farther than 6 feet could also severely injure that worker or worse.

An additional danger that could be life threatening is the pendulum motion of swinging back and forth along the roof edge. This motion will cut and damage the safety line which could result in that employee falling to a lower level. Rope protectors should be used to help protect the safety lines. Even if a rope protector is used, sliding as little as 5-10 feet down the edge of the roof under load could still damage and cut the safety line leading to a severe injury or fatality.

Good safety practices include pre-planning the work location with all workers involved in that task, and never working beyond 15 degrees from an anchor point. Be sure to use adequate rope protection to keep safety lines from being damaged along the roof edge.



### THINGS YOU SHOULD DO IN THE WORKPLACE:

- Do make sure that you have proper protection on your safety line so it won't be damaged.
- Do make sure you work in line attached to sound anchor points that can support the proper load.
- Do make sure you wear the proper full body harness with the proper lanyard and rope grab

### THINGS YOU SHOULD NOT DO IN THE WORKPLACE:

- Do not work farther than 15 degrees from your anchor point.
- Do not work without proper planning.

## REVIEW QUESTIONS

- 1) When rigging for fall protection you must:
  - a) Always tie-back within 15 degrees of a straight line to your anchor point
  - b) Protect your ropes from any damage
  - c) Position your rope grab so your fall is not greater than 2-3 feet
  - d) All of the above
- 2) It does not matter where your tie-back is.
  - a) True
  - b) False: You need to make sure it is no more than 15 degrees from your anchor point.
- 3) You need to protect your safety lines at all times
  - a) True: Any time a rope moves under load, damage can occur.
  - b) False

Talk Given By: \_\_\_\_\_ Date: \_\_\_\_\_  
Company: \_\_\_\_\_ Location: \_\_\_\_\_

**Printed Name**

**Signature**

Printed Name	Signature

Under the Occupational Safety and Health Act, employers are responsible for providing a safe and healthy workplace and workers have rights. OSHA can help answer questions or concerns from employers and workers Contact your regional or area OSHA office or call 1-800-321-OSHA (6742). OSHA also provides help to employers. [Add link on "help to employers" to new Employer Portal page.] OSHA's On-site Consultation Program offers free and confidential advice to small and medium-sized businesses, with priority given to high-hazard worksites.

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