

## FALL ARREST

### 1. Task

Use of a fall arrest system to protect a worker in case of a fall.

### 2. Hazards

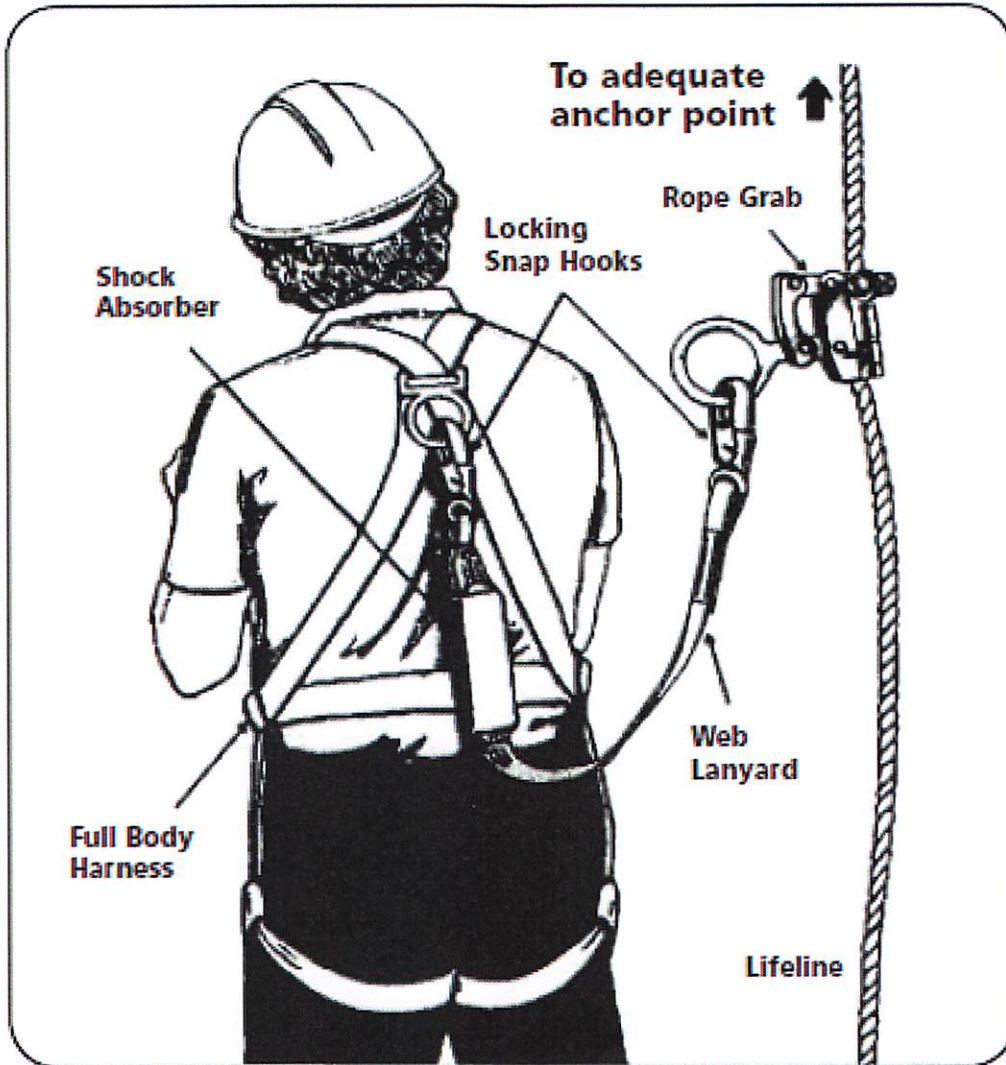
Fall hazard, trip hazard, material/equipment handling hazards (struck by, cut by), bruising or other injuries caused by suspension in harness, impact with lower level, object, or structure ('swing fall'/'bottoming out' hazard), heat/cold stress.

### 3. Controls

Pre-Job Safety Assessment (PSA). CSA/ANSI approved fall arrest equipment and other PPE fall protection plan, (including fall rescue), legislated training, written site-specific safe work procedures, inspection by competent worker.

- ❖ All fall protection equipment and other PPE must be CSA/ANSI approved and workers trained in its use in accordance with Regulatory requirements and Best Personnel safety policy.
- ❖ A personal fall arrest system is required if there is any risk that a worker may fall from an unprotected elevated position.
- ❖ A fall arrest system shall include an approved full body harness and shock-absorbing lanyard attached to adequate anchorage by means of a connecting device and anchorage connector.
- ❖ The shock-absorbing lanyard must be attached to the full body harness using the rear D-ring only.
- ❖ Total fall clearance must be calculated and fall arrest systems arranged so that a worker does not contact a level or object below in the event of a fall (bottoming – out hazard).
- ❖ Fall arrest systems must be arranged, (anchorage perpendicular to worker), so that a worker does not swing like a pendulum and contact objects in the event of a fall ('swing-fall hazard').
- ❖ Fall arrest systems must be designed so that a worker is not subjected to a peak arrest force greater than 8 Kilonewtons (1800 lbs.).
- ❖ A Fall Arrest System shall consist of a full body harness with an attached shock absorbing lanyard connected by an anchorage connector to an anchorage capable of supporting a static load of 1,635 kg (3,600 lbs). Refer to applicable legislative requirements for anchorage requirements.
- ❖ Free-fall distance must be minimized and should not be greater than 1.8m (6').
- ❖ In the event of a fall the fall arrest system shall be taken out of service and not used again unless re-certified by the manufacturer only.
- ❖ A competent worker shall inspect the fall arrest system prior to each use and any defective components taken out of service.
- ❖ Lanyards and lifelines used in a fall arrest system must be arranged in such a way that protects them from cutting, chaffing, extreme temperatures, flame, abrasive or corrosive materials, or other hazards that may damage them.
- ❖ Only one worker at a time may attach to a vertical lifeline.
- ❖ Rope grabs must be installed on lifelines correctly with the arrow pointing up towards the anchor point.
- ❖ Horizontal lifelines must be designed by a professional engineer.
- ❖ Anchorage connectors must be used rather than tie a regular lanyard back on itself, unless you are using a "tie – back" lanyard specifically designed for that use.

**Reference: Fall Protection Safe Work Procedure**



**Full Body Harness and Fall Arrest System**