PERSONAL FALL ARREST PROGRAM

(Rev. 1/07)

Purpose: To provide trainees with the knowledge and understanding to properly utilize the personal fall arrest systems, to select the right system for the task, to enable the trainees to calculate fall distances, identify anchor points, perform inspections, to properly stow and maintain the system. All training must be documented on the training form provided with the fall arrest and protection policies.

Millard's employees will comply with OSHA standards requiring personal fall arrest systems to be utilized when exposed to fall hazards over four feet in the warehouse and six feet on construction job sites and when fall protection can't be achieved.

Pre-Planning: Each exposed worker is responsible for working safely at unprotected heights. Pre-planning is essential to ensure the work can be performed safely and the appropriate personal fall arrest system components are available. If you have any questions or concerns always ask your manager or supervisor. Refer to your plant's safety catalogs to review the different types of personal fall arrest components to help in your selection process.

Selecting Proper Anchorage Points: It is important to remember that a personal fall arrest system is only as good as its anchor point. All anchorages must be capable of supporting, without failure, an impact load of 5,000 pounds. No more then one person can be tied off to a single anchor point.

Engineered Anchor Points: Structural steel members should be used for anchor points whenever possible. Pre-engineered anchorage connectors can be used to attached structural steel members; such as

* Pass-thru Tie-off adapter * Choker with D-ring * Beam anchors
* D-ring anchorage plates with proper attaching bolts, washers, & nuts or welds

Location: The proper location of anchor points is critical in your safety in the event of a fall.

* Should limit the free fall to the shortest possible distance (6 feet or less)
* Should be located directly over your head
* Should be so arranged in the event of a fall, you do not swing into any objects

Improper Anchor Points: The following items are never be used as anchor points:

* Standard guardrails	* Other lanyards	* Ladders/rungs	* Scaffolding
* Light fixtures	* Conduct or plumbing	* Vents or fans	* C-clamps
* Wire harnesses	* Ductwork or pipe vents	* Etc, Etc, Etc.	

Anchorage Considerations: OSHA recognizes that there will be a need to devise an anchor point from existing structures. Examples of what might be appropriate anchor points are steel beams or I-beams if an acceptable strap or beam anchor are available for connection. (do not use a lanyard with a snaphook onto itself). D-ring anchorage plates with proper attaching bolts, washers, & nuts will not pull through or welds will not fail.

Selecting Proper Lanyards: There is a wide array of lanyards available. Lanyards come in different lengths, shock-absorbing type and retractable type, etc. That is why a catalog showing the different types of lanyards is beneficial for picking the right lanyard for the job.

* Use the shortness lanyard possible
* When possible use a retractable lanyard
* When possible always attach the lanyard to anchor point above the head

Retractable lanyard: in many cases is the safer alternative when working on an order (cherry) picker and when working in vertical circumstances. The retractable lanyard is designed with the same principal as a car's seatbelt. This results in limiting the vertical fall to approximately two feet when anchored point is above your head.

Calculating Safe Fall Clearance: You could be exposed to a number of possible fall situations during the course of your job function in our warehouse. There are an enormous number of variables when it comes to calculating the safe clearance needed between the working surface and the surface below. The location of the anchor point and the type of lanyard used are always a variable measurement when calculating the safe clearance needed. However, the 5' D-ring height and the 3' safety factor is a fixed measurement when calculating the safe fall clearance.

Each exposed worker must be able to:

* Calculate the safe clearance required between the working surface and the surface below

* Be able to properly equipped themselves with the appropriate personal fall arrest system that will afford protection during a fall.

* Be able to arrange the personal fall arrest system to a free fall distance to six (6) feet or less

* Be able to arrange the personal fall arrest system to never allow himself to hit the surface below or swing into an object.

Refer to appendix 1 which has four (4) examples of different configuration of the personal fall arrest system.

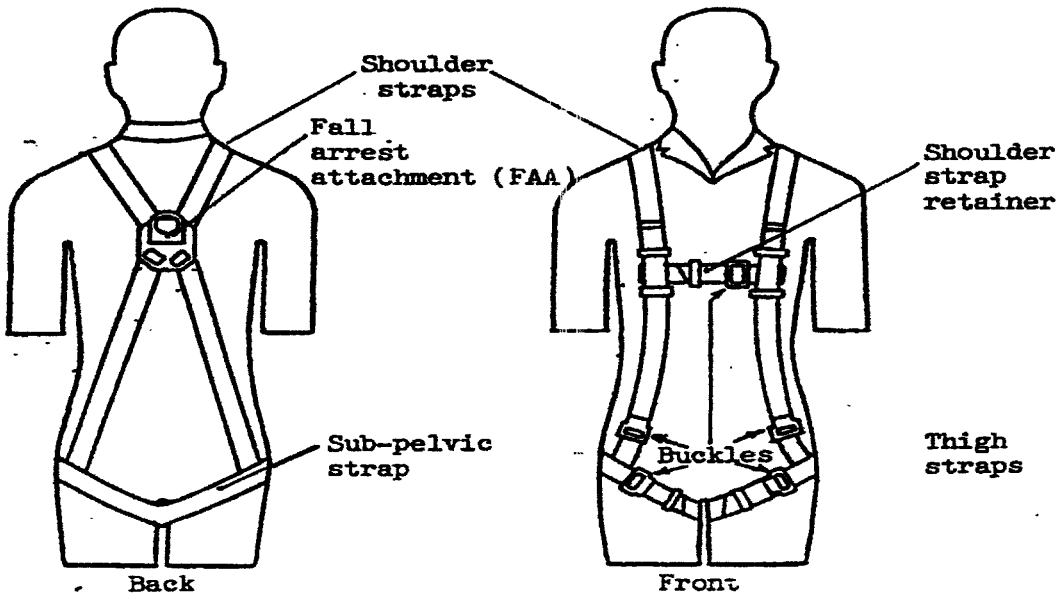
If you have any questions regarding how to calculating the safe clearance needed between the working surface and the surface below or selecting the proper personal fall arrest system contact your supervisor or manager.

How to wear and use a full-body harness

Only full-body harnesses are to be worn when conducting elevated work activities. *Always read and follow the manufacturer instructions on the equipment used in the entire fall arrest system.*

* Visually inspect the body harness before each use.
* With waist and/or thigh straps unbuckled, release the snaps and unbuckle the harness
* Hold the harness by the back D-ring and shake it to allow all straps to fall in place
* Slip the straps over your shoulders so the D-ring is located in the middle of your back.
* Connect the waist strap. The waist strap should be tight, but not binding.
* Pull the buckle portion of the thigh strap between your legs and connect to the opposite end of the leg strap. Repeat with the second thigh strap.
* After all straps have been buckled, tighten all friction buckles so the harness fits snug but allows free range of motion.
* If the harness contains a chest strap, pull the strap around the shoulder strap and fasten it in the middle chest area. Tightening will keep the straps taut.
* Reverse the procedure to remove the harness.
* After removing the harness, reconnect the waist strap. This will give you a starting point the next time you put the harness on.
* Hang the harness by the back D-ring to help it keep its shape when not in use.
* Never use any equipment that has already been involved in a fall arrest.
* Protect your fall protection equipment from damage, and store it properly
* Whenever personal fall protection equipment is required, use it properly.

Full Body Harness



Full Body Harness

Inspection of Personal Fall Arrest Equipment

NOTE: Always follow the manufacturer's direction/recommendations for the inspection requirements of your personal fall arrest systems currently in use.

Body Harness Inspection

1) Closely examine all of the nylon webbing to ensure there are no burn marks that could weaken the material.
2) Make certain there is no torn, frayed, broken fibers, pulled stitches or frayed edges anywhere on the harness.
3) Examine the D-ring for excessive wear, pits, deterioration or creaks.
4) Verify that buckles are not deformed, creaked and operate correctly.
5) Check to see that all grommets (if present) are secure and not deformed from abuse or a fall.
6) Harness should never have additional punched holes.
7) All rivets should be tight and not deformed.
8) Check tongue/straps for excessive wear from repeated buckling.

Lanyard Inspection

1) Check lanyard material for cuts, burns, abrasions, kinks, knots, broken stitches and excessive wear.
2) Inspect snaphooks for hook, locks and eye distortion.
3) Ensure that all locking mechanisms seat and lock securely.
4) Once locked, locking mechanism should prevent hook from opening.
5) Verify that there is no visible "WARNING TAG" which notifies the user that the lanyard has been exposed to a fall.
6) Visually inspect shock absorber for any signs of damage, paying close attention to where the shock absorber attaches to the lanyard.
7) Verify that points where the lanyard attaches to the snaphooks are free of defects.

Retractable Lanyard Inspection

1) Visually inspect the body to ensure there is no physical damage to the body.
2) Make sure all back nuts or rivets are tight.
3) Make sure all cable ends are securely crimped and cable eye and rubber stops are in place.
4) Make sure the entire length of the nylon strap are undamaged and retract freely.
5) Test the unit by pulling sharply on the cable to verify that the locking mechanism is operating correctly.
6) If manufacturer requires, make certain the retractable lanyard is returned to the manufacturer for scheduled inspection.

Snaphooks Inspection

1) Inspect snaphook for any hook and eye distortions.
2) Verify there are no cracks, pitted surfaces or corrosion.
3) The keeper latch should not be bent, distorted or obstructed.
4) Verify that the keeper latch seats into the nose of the hook without binding.
5) Verify that the keeper spring securely closes the keeper latch.
6) Test the locking mechanism to verify that the keeper latch locks properly.

Anchorage Points

Anchor points should inspection before each use. The first consideration would be the verification that all anchor points meet the minimum structural integrity requirements.

1) Look for excessive wear or deformity, which could weaken the anchor point.
2) Look for cracks or sharp edges.
3) Is the anchor point identified as an approved personal fall arrest anchor point?
4) Is there evidence of misuse with the anchor point such as the anchor point used for rigging or lifting heavy loads?

Storage and maintenance of Personal Fall Arrest Systems

Always follow the manufacturer directions for the storage and maintenance of personal fall arrest systems. The following are some general guidelines in the storage and maintenance of these systems.

1) When storing personal fall arrest equipment, never throw systems in the bottom of cabinet, tool box, or on the ground.
2) Hang equipment in a cool dry location in a manner that retains its shape.
3) Remove damaged equipment from service immediately.
4) Avoid dirt build up on equipment and clean with a mild, non-abrasive soap and hang to dry. Never force dry or use strong detergents in cleaning.
5) Never store equipment near excessive heat, chemicals, sunlight or exposed to fumes or corrosives.
6) Never use this equipment for any purpose other than personal fall arrest.
7) Once exposed to a fall, remove all involved equipment from service immediately.

Comments: _____

Personal Fall Arrest System Test

Trainee's Name:_____ Date:_____

Trainer's Name:_____

1) You are required to utilize a personal fall arrest system when exposed to an unprotected fall hazard of four feet in the warehouse and six feet on the construction job site. T or F

2) Being able to calculate the total fall distance for the minimum clearance requirement is very important to ensure your safety? T or F

3) When calculating the minimum clearance required you must always add an additional 3 feet safety factor to help ensure your safety? T or F

4) When calculating the fall distance you must consider the anchor point location, lanyard length, the shock-absorber length or retractable deployment length, d-ring height and the safety factor? T or F

5) When working at a vertical task a retractable lanyard will limit the fall to a shorter distance then a 6 feet shock-absorbing lanyard? T or F

6) If you have any doubt when calculating the minimum clearance requirement you must consult with your supervisor or manager? T or F

7) It is safer to have a suitable anchor point above your head then at your feet? T or F

8) Personal fall arrest systems must only be used when fall protection methods can not be utilized? T or F

9) Personal fall arrest systems do not stop the fall, but only control the fall distance during the fall? T or F

10) Every fall is extremely dangerous regardless of the personal fall arrest system used? T or F

11) If the anchor point fails the entire personal fall arrest system will fails? T or F

12) A retractable lanyard will deploy up to two feet during a fall? T or F

13) The free fall distance is shorter when the anchor point is located above your head? T or F

14) Once exposed to a fall, you must remove all involved system components from service immediately? T or F

15) The entire personal fall arrest system and the anchor point must be inspection before each used? T or F

16) A visible warning tag on a shock absorbing lanyard notifies the user that the lanyard has been exposed to fall? T or F

17) The snaphook on the lanyard must be free of cracks, bends, corrosion or other distortions? T or F

18) Ladders, hand railings, ductwork, pipe vents, C-clamps are examples of items that can not be used as an anchor point. T or F

19) A 6 feet shock-absorbing (3½ feet) lanyard will deploy to a total length of 9½ feet? T or F

20) One of the requirements for an anchor point is that it must be capable of supporting, without failure, an impact load of 5,000 pounds? T or F

21) The personal fall arrest system must be stowed in a manner that maintains the integrity of each component of the fall arrest system? T or F

22) You never use fall arrest components for any purpose other then fall arrest? T or F

23) Hanging a harness by the back D-ring will help keep its shape when not in use? T or F

24) The Purpose of this training is to provide trainees with the knowledge and understanding to properly utilize the personal fall arrest systems and to select the right system for the task. To enable the trainees to calculate fall distances, identify anchor points, perform inspections and to properly stow and maintain the system? T or F

Comments: