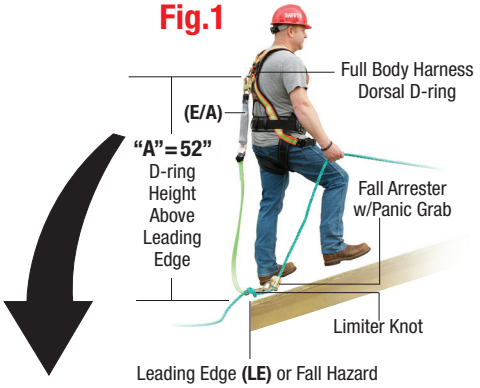
Energy Absorbers Length of Fall Plan

Fig.1



12ft Max. Free Fall

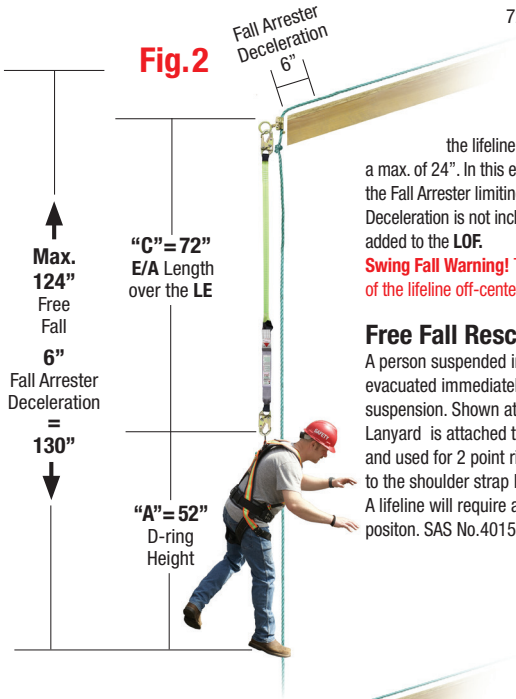
The free fall example shown here is less than 12ft. and is intended as a guideline. End users are required to draft their own job specific Length of Fall Plan **(LOFP)**.
The free fall length is calculated as follows:

1) The D-ring height above the leading edge, 52" as shown at Fig.1.
2) The **E/A's** service length that is allowed to fall over the leading edge during a fall as shown at Fig.2 and 4.

E/A Rigging

3) In this example the **E/A** is hanging vertically from the harness D-ring. The Fall Arrester is positioned at the leading edge 6" above the limiter knot. Calculate the free fall by adding the D-ring height to the **E/A's** service length 72"+52"=124" [10'-4"]

Fig.2



Free Fall

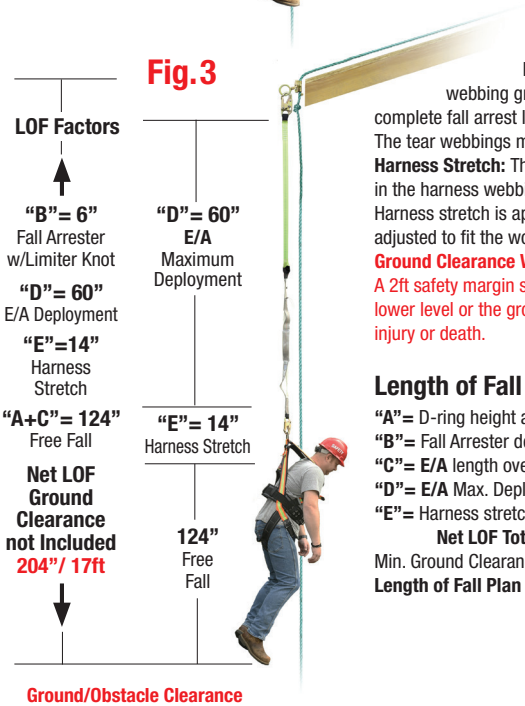
Phase 1 Fall Arrester Lock: The Fall Arrester (Rope Grab), locks onto the lifeline when a force is applied and will decelerate a max. of 24". In this example the limiter knot is placed 6" below the Fall Arrester limiting the maximum deceleration to 6". Deceleration is not included in a free fall length but is added to the **LOF.**

Swing Fall Warning! The **LOF** will be increased by the angle of the lifeline off-center from the anchor point above.

Free Fall Rescue

A person suspended in their full body harness must be evacuated immediately to prevent serious injury from trauma suspension. Shown at Figs. 5,6, and 7, a SAS No.6515 2-D Lanyard is attached to a rescue lifeline or retrieval device and used for 2 point rigging. The lanyard can be attached to the shoulder strap D-rings, front D-rings, or side D-rings. A lifeline will require a rope grab to adjust the lanyards positon. SAS No.4015 SuperGrab ™ is recommended.

Fig.3



Fall Arrest

Phase 2 E/A Deployment: When the Fall Arrester locks onto the lifeline, the **E/A's** tear webbing gradually deploys reducing the free fall velocity to a complete fall arrest limiting the average fall arrest force to 1,350 lb. The tear webbings maximum deployment for a 12ft **E/A** is 60"

Harness Stretch: The weight of a suspended worker takes up any slack in the harness webbing causing the D-ring D-Plate to slide upward. Harness stretch is approx. 14" provided the harness has been properly adjusted to fit the worker, reducing webbing slack to a minimum.

Ground Clearance Warning!

A 2ft safety margin should be added to the net **LOF** to avoid striking a lower level or the ground below. A failure to do so can result in serious injury or death.

Length of Fall Calculation

"A"= D-ring height above **LE**	52"
"B"= Fall Arrester deceleration	6"
"C"= E/A length over the **LE**	72"
"D"= E/A Max. Deployment	60"
"E"= Harness stretch	14"
Net LOF Total	204" [17ft]
Min. Ground Clearance	24"
Length of Fall Plan (LOFP)	**228" [19ft]**

No. FD-6071 Front D-ring Harness

Fig.5

Fig.6

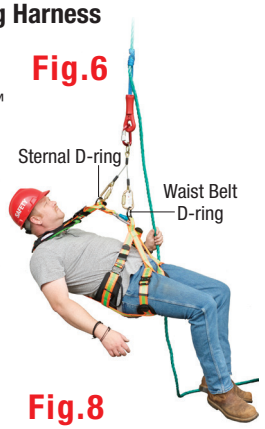


Fig.7

No.6101 Deluxe Harness

Fig.8

No.6060 Trauma Suspension Ladder

Harnesses can be fitted with an accessory webbing type step ladder to provide relief from suspension trauma prior to rescue.

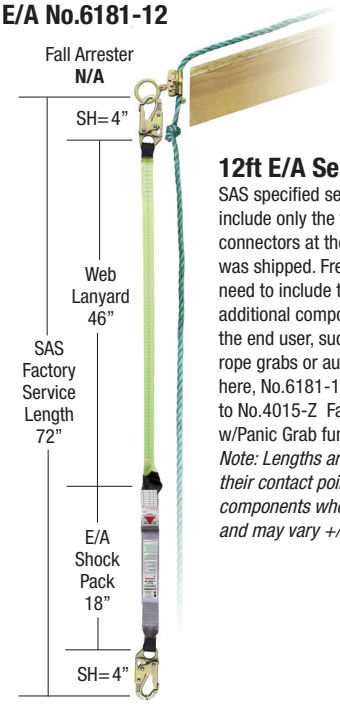
Fig.9

No. 6515-C

2-D Lanyard w/Auto-Lock Aluminum Captive Carabiners

Fig.4

E/A No.6181-12



12ft E/A Service Length

SAS specified service lengths include only the factory attached connectors at the time the E/A was shipped. Free fall calculations need to include the lengths of any additional components supplied by the end user, such as carabiners, rope grabs or aux. lanyards. Shown here, No.6181-12 E/A is attached to No.4015-Z Fall Arrester w/Panic Grab function.

Note: Lengths are measured from their contact point with other components when in tension and may vary +/- 2".