February 3-2014
CF Urea Warehouse

Personnel Fall Arrest, Fall Prevention and Fall Protection System Plan for fall exposures of 6 feet or more during steel erection and roof activities.

Fall Protection System Components:

Iron worker personal fall protection harnesses and lanyards
1/2 inch wire rope
1/2 inch wire rope forged clips
1/2 inch quick links, Cabletech rating 15,750 lbs, non rigging use
Standing seam clamp, 5000 lb. rating
Retractable lanyards, engineered fall arrest system
Beamers and chokers use, when lifeline not available
Aerial lifts to be used whenever possible to reduce fall hazards

System Requirements:

- Create fall protection systems based on OSHA requirements to provide a system capable of supporting twice the known factors of 900 lbs of energy created during a fall of a worker with tools and equipment, not exceed 310 lbs per worker. This system will be required to support two workers based on these requirements.
- Twice the known energy of 900 lbs. requires a safety factor of 1800 lbs, per person on the system.
- 1/2 inch cable may be used for fall protection needs when more than 2 workers would need to tie off to the system and up to 4. 1/2 inch cable rating of 26,600, reduced to a usable capacity or 13,300 lbs. for safety. 1/2 inch cable is 56% stronger than 3/8 inch. This is adequate for four workers to secure from safely.
- This cable will need to be secured taut enough not to allow excess slack that could allow worker to hit the floor, ground or structure below.
- The combined movement and flexibility of the purlins will provide additional shock absorbing ability and strength to the system.

Component Installation and Use:

All fall protection and positioning system installation will be supervised and inspected by qualified person before use each day. All personal fall arrest systems will be inspected daily before use. All workers using these systems will have received fall protection training in the use of this type fall protection system and the hazards of working from heights over six feet.

1. Erection of roof beams and lap connection of purlins
   - Horizontal life lines, beamers and man lifts will be utilized to achieve fall protection standards during the erection of roof beams and purlin connections.

2. Roof and trim fall hazards. 1/2'" horizontal lifelines will be used as the <u>primary fall prevention</u> system.
   - Fall protection during roofing operations will be achieved using a single ½'' horizontal life line positioned at the ridge and 6' up from the low eave utilizing beam clamps and seam clamps stationed every 60'. Static lines will be attached to the horizontal life lines for complete roofing accessibility.
   - Once the roofing process is completed the life lines will be detached from the end wall rafters and reconfigured attaching to standing seam clamps located 6' from the leading edge so that trims can be installed.
   - Warning lines will be used at the 6' perimeter letting employees work freely once roofing is completed. Access zone will be identified to insure that workers stay inside of the designated working zone.

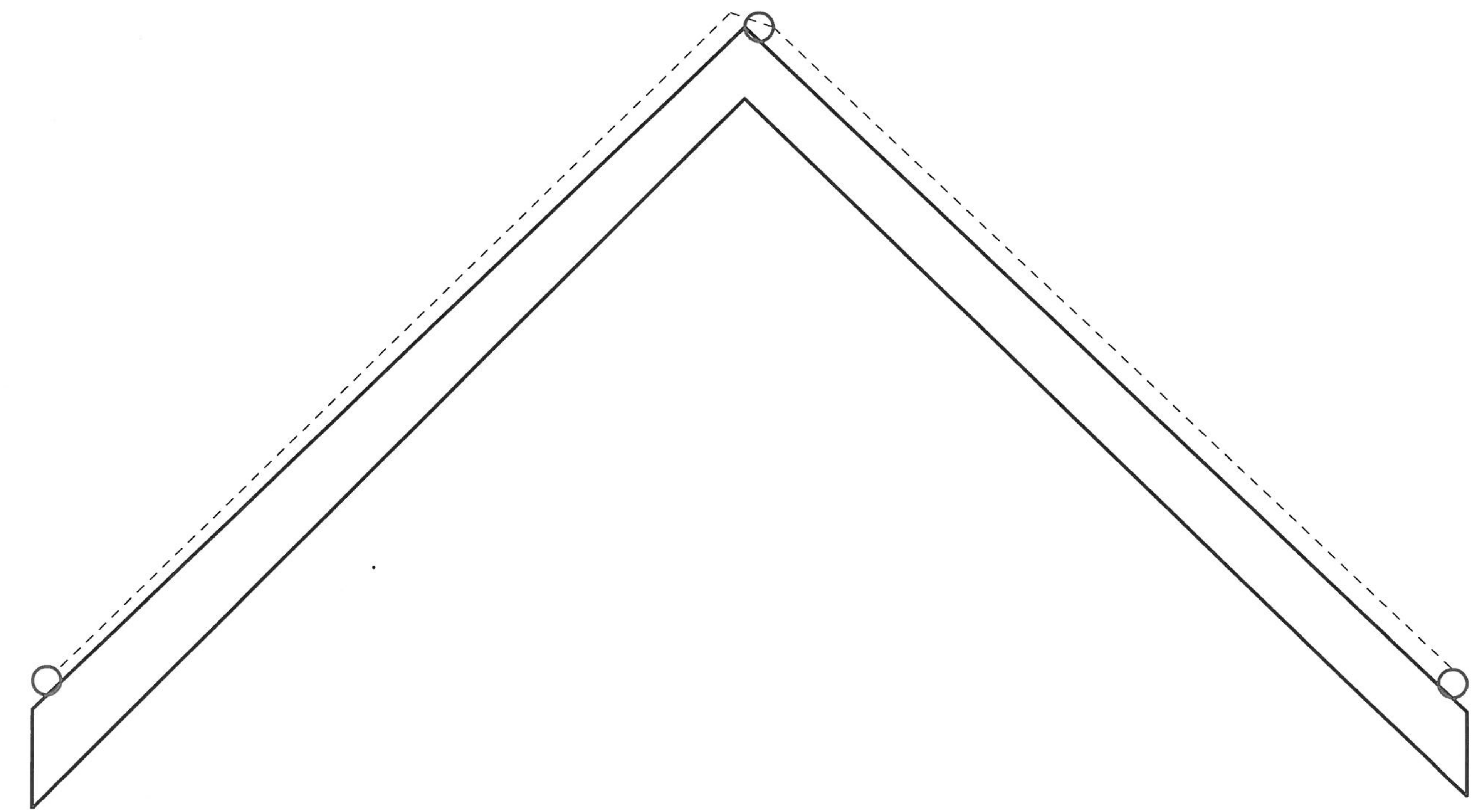
3. Removal of fall protection systems and working on roofs without lifelines systems installed for fall protection.
   - During the removal or installation of lifeline systems, all workers exposed to falls will use a system that may include the use of chokers, beamers, retractable lanyards and standing seam clamps to maintain 100 % tie off.
   - Aerial lifts may also be used for the installation or removal of fall protection systems. The workers in the lifts are required to comply with requirements required per OSHA. Aerial lifts may also be used to access the structure and roof areas. During transition from the lifts to the structure these workers will maintain 100% tie off.
   - **Tie off in man lifts will be 100% utilizing 4 foot lanyards attached to the rear D ring on the employees back and the manufacturers tie off points installed on the lift cage.**

Caution Note: Because of the ongoing modifications to these fall protection systems, no other contractors or persons are allowed to use these systems and should not count on them for fall protection. No other persons or workers are allowed to work in these areas until those areas are released.

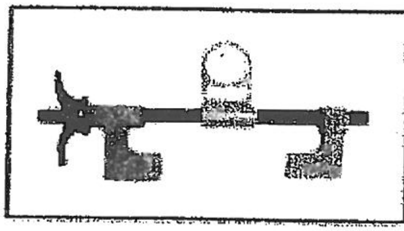
Fall Protection For Purlin Conections

○ =5000 lb. anchor points

- - - =1/2" Safety Cable



QUICK ROD™ FIXED BEAM ANCHOR



FEATURES:

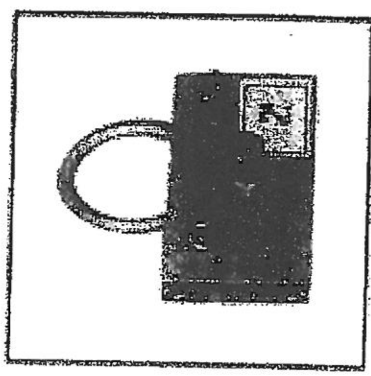
- 5000 lb. anchor point for structural steel
- Simple installation
- Vertical, horizontal, or angled application
- Portable and reusable
- Does not slide along beam

[illegible]	
323QUKRFB-	
18W	18 INCH
24W	24 INCH
36W	36 INCH

[illegible]	
323QUKRFB-	
18H	18 INCH
24H	24 INCH
36H	36 INCH

Preferred Safety Products, Inc.

STANDING SEAM ROOF CLAMP



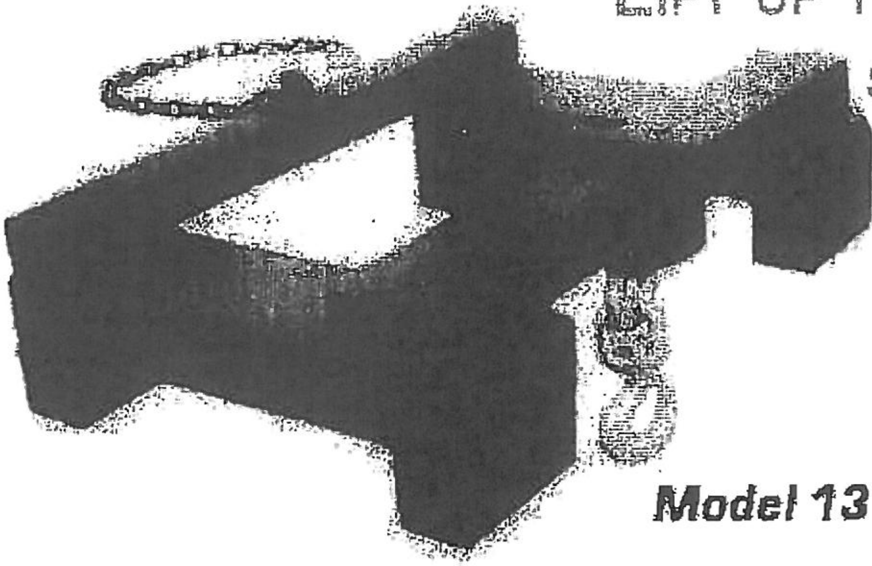
FEATURES:

- Allows fall protection on 'finished' roofs minimizing damage potential
- Useful for leading edge exposures
- Standard shown, new universal also available

ITEM NUMBER
340SSRC-00

LIFT UP TO 10,000 LBS.

SAFELY AND SECURELY

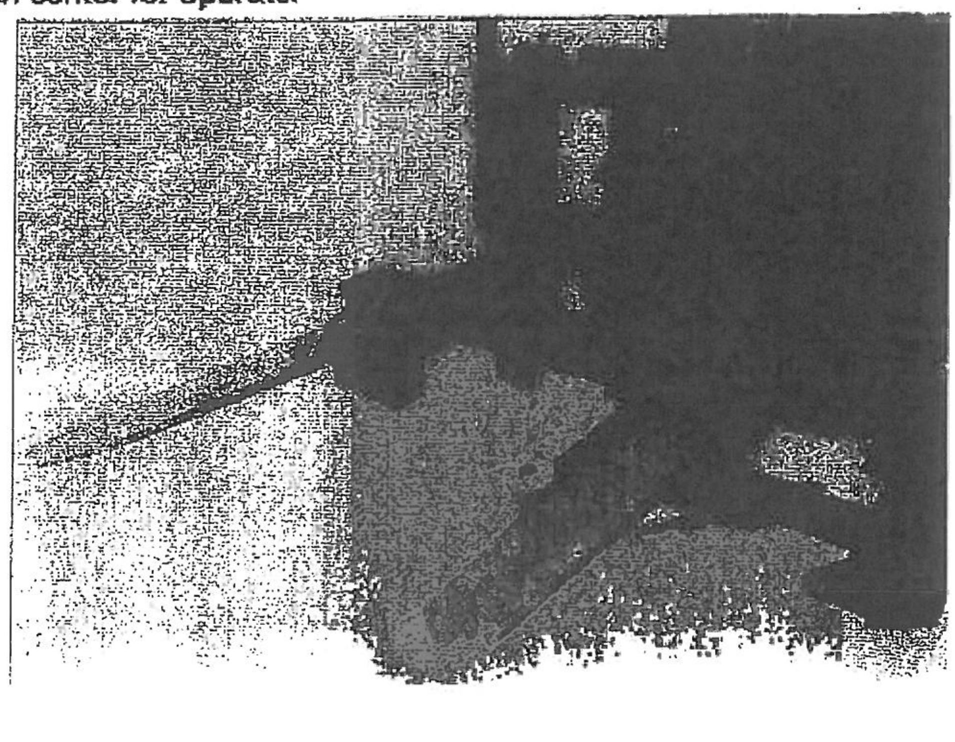


Meets / Exceeds OSHA & ANSI requirements

Model 1370

Don't get a citation - OSHA prohibits straps, cables or chains around bare forks.

- Designed to utilize the full capacity of your forklift. The hook point is located at the standard 24" Load Center where most forklifts are rated. Can be used with both straight-mast and extendable-reach forklifts.
- Fork Pockets are extra wide to accept up to 7" wide by 2¾" thick forks and are spread to 34" on center for operator convenience.
- Heavy Duty 10,000 lb. Swivel Hook with keeper and screw pin anchor shackle are included.
- High strength chain and grab hook secures Lift Hook to forklift.
- Rugged heavy duty construction ensures long term durability.



Specifications

- 10,000 lb. Load Capacity
- 5 Ton Swivel Hook
- 42"W x 12"H x 28½"L
- Empty weight - 265 lbs.