

Ladder Company Operations

Date: May 2018
Section #: 4

TOPIC TITLE:
Ladder Rescue

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**TOPIC #5:** LADDER RESCUE

#### LADDER RESCUE FROM A WINDOW:

It may become necessary to rescue a conscious or unconscious person from upper stories by using a ladder. Ladder rescue is utilized when there is no other safe means of exit from a building.

Ladders can also be used to rescue fire fighters from upper floors if there is no other way to remove them from the building.

#### **PLACEMENT**

For rescue purposes, ground ladders or aerial ladders, should be placed so they are at the base or sill of the window and in the center of the opening.

When placing ladders for potential egress or rescue purposes on the fire ground they should be placed just below the sill or base of the window and in the center of the opening. (make sure FF's on inside can feel the ladder when they reach over the ledge)

Typical ladder angle = 75.5 degrees

Allowable ladder angle = 60 degrees (the closer to 60 degrees, the easier it will be to rescue and control victims and fire fighters because the ladder is carrying more of the weight, not the rescuer).



<u>Caution</u>: when using a ladder @ 60 degrees it must be aggressively heeled (to prevent kick-out) and not overloaded (to prevent failure)

<u>Note</u>: If placing for secondary egress purposes, be cautious not to pre-maturely break windows if it will affect fire attack.

SEE "RAT LADDER RAISE" FOR MORE INFORMATION



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### **AGGRESSIVE HEEL**

- If possible, two fire fighters should be used to aggressively heel a ladder on the beams.
- The fire fighters inside foot (closest to the ladder when facing it) should be placed at the base (against the beam) and both hands should be at shoulder height applying inward pressure against the ladder beams.
- Look at the top of the ladder to watch for movement. If the ladder begins to move, firm inward pressure should be applied at the base of the ladder.

## OTHER HEEL TECHNIQUES

- To heel a ladder with one fire fighter, do the following:
  - o Step onto the first rung and spread your feet to the sides towards the beam
  - o Grasp the beams or rungs of the ladder at a convenient location
  - o Look up and be prepared to move if the rescuer or victim were to fall.

Fire fighters shouldn't heel a ladder from the side closest to the building to avoid being injured by falling debris, equipment or persons.



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# Ladder Rescue THE "SIDEWAYS" METHOD FOR LADDER RESCUE

This rescue method is most suitable for an unconscious victim.

## IF RESCUING A FIRE FIGHTER – THE SCBA SHOULD BE REMOVED.

- 1. The fire fighter on the inside of the building will place the victim on the window sill in a sitting position, while supporting the victim by placing his arms around the victim's chest. (the victim can also be placed face first on the sill)
- 2. The rescuer moves to the top of the ladder
- 3. The fire fighter on the ladder has his hands on the beams as the victim is fed out onto his arm and the victim's legs rest on the rescuers arm.
- 4. The fire fighter on the ladder uses his other hand to grasp the wrist of the victim that is closest to him and pulls him across the ladder and then places that hand on the beam under the victim's
- armpit or neck, whichever is easiest.
- 5. The victim should be facing the rescuer.
- 6. The fire fighter on the ladder will place both hands on the beams of the ladder in order to steady or balance the victim. The victims weight should mostly be resting on the ladder with the rescuer controlling the downward movement.
- 7. During the descent, the fire fighter's hands will slide down the beams. *Gloves are* an important tool in this evolution. The fire fighter's body may be used as a brake or support by pinning the victim against the ladder.
- 8. The rescuer must move one rung at a time. Keep one knee up as the victim is moved down the ladder to catch the victim if they were to slide.
- 9. After reaching the ground, the fire fighter will require assistance to move the victim to a safe area for triage and treatment.

#### 10. USE CAUTION. ONE SLIP COULD RESULT IN A SERIOUS FALL



Hand under the armpit and grasping the beam of the ladder as the victim's uper body is supported.



Hand between legs and grasping the beam of the ladder



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# Cincinnati Fire Department Fire Training Supplement DRILL BOOK

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## THE FEET FIRST METHOD FOR LADDER RESCUE

This method of rescue is most suitable for a conscious person. In this method an unconscious victims head would bounce on each rung. This rescue method can be used on persons who are injured, cannot walk or are afraid of the ladder.

#### IF RESCUING A FIRE FIGHTER – THE SCBA MUST BE REMOVED.

- 1. The fire fighter on the inside of the building places the victim on the window sill in a sitting position, while supporting the victim by placing his arms around the victim's chest. The victims feet should be out and resting on the ladder.
- 2. The rescuer positions on the ladder in a position to accept the victim (about the height of the victim's crotch)
- 3. The fire fighter on the ladder places the victim's legs over his shoulder.
- 4. The fire fighter on the ladder places his hands around the victim's waist and grasps the ladder beams.
- 5. The rescuer comes down the ladder one rung at a time.
- 6. The victim's weight remains on the ladder until the victim reaches the ground.
- 7. During the descent, the fire fighter's hands will slide down the beams. *Gloves are an important tool in this evolution*. The fire fighter's body may be used as a brake or support by pinning the victim against the ladder.
- 8. After reaching the ground, the fire fighter will require assistance to move the victim to a safe area for triage and treatment.
  - a. Two additional rescuers (or those who were aggressively healing the ladder) should place themselves on either side of the ladder to assist.
  - b. Grab the victim at the collar and under the arms.
  - c. Original rescuer gives the command "step away" and the victim is removed from the ladder by stepping straight back.

Victim's legs over the rescuers shoulders

Rescuer's arms under the victim's armpits grasping the beams

Rescuer stands upright on the ladder to keep the victims butt off the ladder







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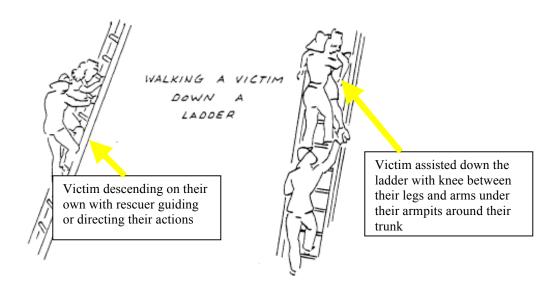
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## **OTHER METHODS OF LADDER RESCUE**

Victims can be assisted down a ladder if they are able to walk on their own by walking behind the victim and talking them through the steps of descending a ladder. They can also be supported if they are too young or old or are timid about the situation.

Method to support the victim as they descend the ladder:

- 1. Place yourself directly behind the victim on the ladder
- 2. Place one knee between their legs to ensure if they slip they are supported
- 3. Place your hands around their back and under their armpits to allow control and to push the victim against the ladder if needed. GRASP THE RUNGS DURING DESCENT ON THE LADDER.



Small victims can be removed by placing them across your arms as you descend a ladder.

