



### **Pole / Bangor Ladder Raise**

Due to their weight and size, the vast majority of “Pole Ladders” are STORED on a fire apparatus on the pole ladder’s BED section in the FLAT position. This is important to remember because:

The pole ladder’s stored position lends the ladder to be carried by the ladder team in a “flat arms-length” (flat straight-arm) carry ...OR... the “flat shoulder carry” when moving the ladder to its point of use.

For training continuity, the “Flat Raise” shall be utilized by the ladder team to raise any size pole ladder.

The pole ladder MUST be placed on its FLY section PRIOR to the pole ladder being raised ...BUT... only after the tormentor poles (or staypoles) have been “unlatched” from the bed section.

Along with the normal factors to consider prior to raising any extension ladder, an additional consideration that must be taken into account when raising a “pole ladder” is the clear area needed to accommodate the overall length of the ladder AND STAYPOLES when the ladder is positioned to be raised either PERPENDICULAR or PARALLEL with the wall face of the building. This distance can be as much as 40 feet, NOT including the distance the heel (butt) of the ladder is placed from the building. (verify distance with CFA pole ladders)



Flat Shoulder Carry

In addition to the “Ladder Commands” already in use, the following “Ladder Command” shall be used when re-positioning the tormentor poles (staypoles) to raise or lower the pole ladder:

PREPARATORY COMMAND  
**“Prepare to Quarter Poles”**

EXECUTION OF COMMAND  
**“QUARTER POLES”**

“Quartering Poles” refers to the FFs assigned & positioned on the tormentor poles (staypoles) to move in a 90 degree angle to one another in relation to the pole ladder when in the vertical position.



### **5 (five) Firefighter Pole Ladder Raise**

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There are five positions needed to be assigned in order to raise a Pole Ladder:

- 1 - Butt (Heel) Firefighter
- 2 - Beam Firefighters
- 2 - Pole (Staypole) Firefighters

Typically on the fire ground the strongest firefighters should be assigned the Beam positions. The following steps should be followed when “raising” a pole ladder with 5 Firefighters:

**STEP 1:** The ladder is carried to the approximate location where it shall be raised. The pole ladder is placed on the ground on its Bed Section.

- A. The ladder team shall decide if the location provides the clear area for the pole ladder to be raised “perpendicular or parallel” to the wall face of the building.
- B. If being raised perpendicular to the wall face, the placement of the pole ladder should be slightly to either side to the intended objective to accommodate the pole ladder being turned over onto its fly section.



**STEP 2:** The 5 Firefighters remain in a staggered position along the pole ladder. The FF closest to the heel (butt) of the ladder “unlatches” the securing mechanism used to keep the staypoles attached to the pole ladder.





**STEP 3:** The FF closest the tip (top) of the ladder determines the direction the ladder shall be turned over onto its FLY SECTION, keeping in line with the intended target. With the staypoles unlatched, the ladder team “Flips” the ladder onto its fly section.

Ensure the Staypoles remain close to the Beams as the ladder is flipped on to the Fly section.



Staypoles close to Beam



Flipping Ladder unto Fly Section

**STEP 4:** Once on its Fly section, the ladder team repositions themselves for passing and receiving the staypoles. (2 FFs positioned mid-way on the beams of the pole ladder pass the staypoles to the 2 Firefighters who have moved out from the tip of the pole ladder. One FF stays positioned at the heel.)

A. It is critical that the staypole “TOGGLE” swivels freely when passing and receiving the tormentor poles. Failure to do so will snap and break the “TOGGLE”.



Firefighter Passing Poles walking along side of Beam.

B. Firefighters passing the stay poles should walk along close to the beams, this will prevent binding or torque to the toggles.



Firefighter Passing Poles



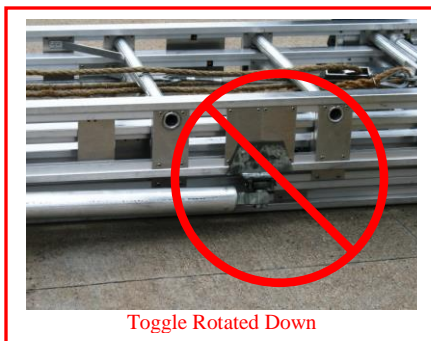
Moving away from the Beam could cause Torque and Break the Toggle





**STEP 5:** The Firefighters take their positions for the raise.

- A. The Butt (heel) Firefighter crouches and balances him/herself on the butt of the ladder.
- B. The beam Firefighters squat beside the beams, just below the toggles in a proper lifting position, facing each other and grasp the beam with both hands.
- C. The staypoles should be as nearly in line with the ladder beams as possible. Firefighters stand on the outside of the poles with the end spur between fingers and free hand extended holding the staypole.
  - 1. The toggles must be rotated out along the beam.





**STEP 6:** The Butt firefighter gives preparatory command **“Prepare to Raise”** and command to **“Raise”** the ladder

- A. The Beam firefighters at the tip bring ladder to shoulder level, pivot under the beams facing the heel, and walk hand over hand down the beams raising the ladder.



Preparing to Raise



Pivoting under the Beams



Beam Firefighters Shoulder the Weight

- B. The Butt firefighter leans back so his/her body weight helps with the raise.

**STEP 7:** When the pole ladder reaches 45 degrees, the staypole Firefighters assume most of the weight of the ladder.

- A. The Staypole Firefighters continue pushing them to raise the pole ladder vertical.



Adding Weight to Staypoles

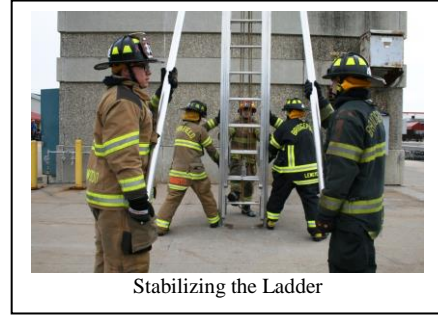
- B. The Beam Firefighters can now walk sliding or hand over along the beam.



Beam Firefighters Sliding hands up the Beam



**STEP 8:** Once the ladder is in the vertical position, the Beam Firefighter will stabilize the ladder.



Stabilizing the Ladder

A. The inside Foot of each Beam Firefighter should be alongside the Beam. The Butt Firefighters foot should be centered on the bottom rung.



Stabilizing – Foot Placement



Stabilizing – Foot Placement

B. Arms will be “K” position with the Forearm against the beam.



Stabilizing – Beam Firefighter

C. Body turned at 30 to 45 to the beam. This will assist with the placement of the forearm.



Stabilizing – Beam FF turned out 45°





**STEP 9:** Once the ladder is in the vertical position, the heel Firefighter will give the command to the Pole Firefighters to **“Quarter Poles”**.



Stay Pole Firefighters Stabilizing Ladder

The two Stay Pole Firefighters will adjust their inside to their chest. This will provide a more control when adjusting for Sway or Drift.



Stay Pole Firefighters “Quartering” Pole

One of the Pole Firefighter will move to the side to form a 90 degree angle to the lateral plane of the ladder.

This can be determined by the Direction of the Wind and Sun or Lights.

The Pole Firefighters now have the **CRITICAL** responsibility of monitoring the sway and drift of the ladder.

- A. The left to right sway of the ladder (Pole Firefighter facing the wall of the building)
- B. The inward/outward drift of the ladder (Pole Firefighter facing the beam of the ladder) while it is being extended!!!



Stay Pole Firefighters Control SWAY and DRIFT



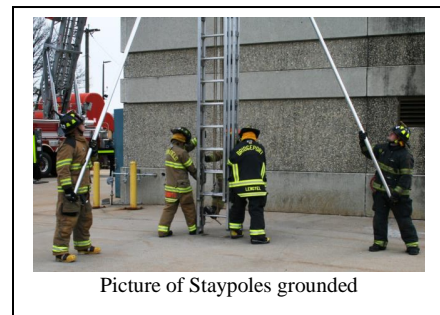
**STEP 9:** The pole ladder is extended with the Butt Firefighter pulling the halyard to extend the ladder, while the Beam Firefighters stabilize the ladder using the “K positioning” at the butt of the ladder.



Picture of Beam Firefighters “K”

The Pole Firefighters will look up at the tip to determine stability and height to be extended.

The Beam Firefighters will look down to ensure the Heal or Butt Spurs are grounded.



Picture of Staypoles grounded

The Pole Firefighter facing the building will determine when the ladder is at the proper height.



Staypole Firefighter  
Determines when the ladder  
has reached the Height

The BUTT Firefighter will need to step back away from the Bed of the ladder to ensure all Dogs are Locked.



Checking Dogs are Locked



Fly Section Dogs





**STEP 10:** Once extended to the proper height, the pole ladder is then “Lay In” into the building with the staypoles remaining in the “Quartered” position.

- A. The BUTT Firefighter will place their hands on the Beam directly across from their face. This will ensure that the proper body is being applied when pushing against the beams while LAYING IN In and TAKING AWAY.



Picture of Staypoles grounded

- B. BEAM Firefighter will Pull back with their inside hand on the rung directly across from their shoulder and inside foot on the first rung while LAYING IN In and TAKING AWAY.



Picture of Staypoles grounded

- C. The SWAY Staypole Firefighter will tightly grip the pole and walk with ladder while LAYING IN against the building and while TAKING AWAY while the ladder comes to vertical.



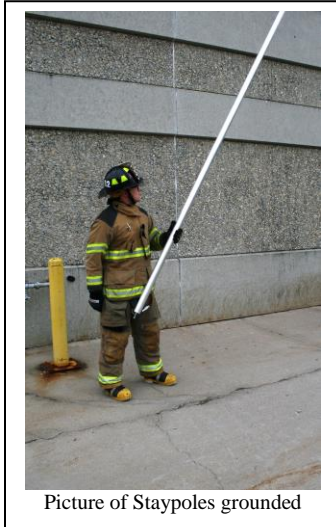
Picture of Staypoles grounded

- D. The DRIFT Staypole Firefighter will control the walk with ladder while LAYING IN and TAKING AWAY keeping the pole perpendicular to the ground and call out when the ladder nears vertical.



**STEP 11:** The Pole Firefighters walk their poles towards the building and let them rest on the ground.

- A. Staypoles are **NOT** meant to carry the stress and weight placed on the pole ladder. Their purpose is to prevent side slippage. Therefore, it is imperative that the staypoles NOT be wedged *into the ground*.



**TO LOWER THE POLE LADDER, REVERSE THE RAISING PROCEDURES**

When the pole ladder has been raised **PARALLEL** with the face of the building, the pole ladder must be pivoted so the **FLY** section is away from the building. The staypoles are “Quartered” **PRIOR** to pivoting the ladder. The swivel of the “Toggle” allows for the pivot to be conducted without interfering with the pivot **OR** repositioning the staypoles.