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Report of the Week

**I guess it was more than the block could take.
02/17/2011**

Report Number: 11-0000073

Report Date: 02/08/2011 17:57

Synopsis

Cribbing explodes while putting on snow chains.

Demographics

Department type: Paid-on-Call

Job or rank: Fire Fighter

Department shift: Other

Age: 25 - 33

Years of fire service experience: 0 - 3

Region: FEMA Region I

Service Area: Suburban

Event Information

Event type: On-duty activities: apparatus and station maintenance, meetings, tours, etc.

Event date and time: 12/26/2010 19:00

Hours into the shift:

Event participation: Told to and submitted by safety officer

Weather at time of event: Cloudy and Snow

Do you think this will happen again?

What were the contributing factors?

What do you believe is the loss potential?

Event Description

On the eve of a major winter storm our department was asked to place the tire chains onto the engines. Our department used to drive up onto large 4 foot, 4x4 hardwood blocks/cribbing, to lift the rear of the truck up just enough to get the chains on easily. While wearing full turnout gear as per protocol, the block of wood on the officer's side exploded due to the weight of the vehicle. The explosion sent pieces of wood from the size of tooth picks to the size of kitchen knives across the station over 25 feet away and over 10 feet in the air. It sounded like a shotgun blast and caused damage to the rear of other vehicles parked in the bays and other equipment. By chance, everyone was standing toward the front of the engine and received no injuries but all involved were mentally "shaken up".

Lessons Learned

It was determined that 4x4 wood block/cribbing is not safe to be used to support a vehicle of that size. Someone could have been seriously injured or killed. Our department cannot afford large jacks but we have now upgraded to 8x8 railroad ties.

I guess it was more than the block could take.

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Report of the Week

It is an understatement to say that this year's winter weather has placed a strain on many fire departments in the United States and Canada. Crews have been taxed and challenged by the weather in ways that have required innovative thinking and good street sense.

Applying snow chains is one of the traditional rituals recreated countless times in fire stations that experience cumulating snow. The process seems simple enough. If you are lucky, you get to "chain 'em up" before the rig hits the street for its first run. If you are not lucky, you'll end up with sleeves full of slush as you chain the apparatus after a couple of runs in the snow. There are other dangers associated with applying snow chains as we see in this week's featured report, [11-073](#).

"On the eve of a major winter storm our department was asked to place the tire chains onto the engines. Our department used to drive up onto large 4 foot, 4x4 hardwood blocks/cribbing, to lift the rear of the truck up just enough to get the chains on easily. While wearing full turnout gear as per protocol, the block of wood on the officer's side exploded due to the weight of the vehicle. The explosion sent pieces of wood from the size of tooth picks to the size of kitchen knives across the station over 25 feet away and over 10 feet in the air. It sounded like a shotgun blast and caused damage to..."

Fortunately, there were no injuries in this event. The submitter notes later in the narrative that this was "by chance." Lifting the rear half of a 20 ton piece of apparatus is no small feat, nor should it be assumed to be a "routine" activity. Once you have read the entire account of [11-073](#) and read the related reports, consider the following:

1. The engine in this report drove up onto the hardwood block before the block exploded. A 4x4 (actual dimension 3.5x3.5) hardwood block can support approximately 6000lbs. (Lumber Dimension² x 500psi for hardwood). What is the estimated weight of an engine in your department and how much of that weight is carried by each tire?
2. What alternative resources might be available in your community to assist with lifting apparatus when chains need to be applied?
3. How often are tire chains inspected in your department?
4. What are the signs that a tire chain is in need of replacement?
5. Who serves as the safety officer when activities like applying tire chains are underway?

Related Reports – Topical Relation: Applying Snow Chains

[08-576](#)

[09-978](#)

Have a near miss related to snow chains? Submit your report to <http://www.firefighternearmiss.com> today so everyone goes home tomorrow.

Note: The questions posed by the reviewers are designed to generate discussion and thought in the name of promoting firefighter safety. They are not intended to pass judgment on the actions and performance of individuals in the reports.