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## Report of the Week

"Saw Shakes, Rattles, and Rolls"  
4/19/2012

**Report Number:** 12-0000076

Report Date: 03/19/2012 12:20

### Synopsis

Saw head detaches during operation

### Event Description

We had a reportable mishap while operating the [product name withheld]. The incident occurred when firefighters were performing hands-on training with the saw. About 30 minutes into using the saw, a firefighter wearing full PPE was using the saw to cut a wooden truss assembly that was scrap material. As he was cutting the material the entire saw head/blade assembly operating at full RPM became detached and fell to the ground. No injury was sustained but the potential for severe dismemberment and injury was extremely high. Part of a sheared bolt fell onto the ground right next to the firefighter. Two mounting bolts hold the head assembly to the body of the saw. Interior inspection revealed the other half of the sheared bolt was still inside the front of the saw. The rear bolt was missing. It was determined that the rear bolt was not present before operation, or that the bolt vibrated loose and out during the operation. The manufacturer was contacted to see if there was any history of this happening. We were told there was one other occurrence. [Manufacturer information is under review. Additional information will be added to this report as it is obtained.]

### Lessons Learned

A close inspection of all bolts before operating the saw would have determined if the bolt was loose or missing and could have prevented the incident. Comprehensive periodic inspection of equipment is vital since you don't have time to do it during emergencies. It's not enough to do only a functional check to ensure a piece of equipment operates properly. Periodically all bolts and fasteners should be inspected. Was the sheared bolt defective or could it have vibrated loose during the first 30 minutes of using the saw? For extended use, maybe bolts and fasteners should be inspected every 30-60-90 minutes to ensure nothing has vibrated loose. This Near Miss was an extremely valuable lesson learned for our department and we are fortunate that no one was injured.

### Demographics

Department type: Paid Federal

Job or rank: Deputy Chief

Department shift: 24 hours on - 24 hours off

Age: 52 - 60

Years of fire service experience: 30+

Region: FEMA Region III

Service Area: Suburban

## Event Information

Event type: Training activities: formal training classes, in-station drills, multi-company drills, etc.

Event date and time: 03/01/2012 10:00

Hours into the shift:

Event participation: Told of event, but neither involved nor witnessed event

Weather at time of event: Clear and Dry

Do you think this will happen again?

What were the contributing factors?

- Individual Action
- Equipment

What do you believe is the loss potential?

- Life threatening injury

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## Report of the Week

Operating power equipment requires that personnel be knowledgeable in its design and safe operation. Also, the user needs to be competent on its intended use and proper personal protective equipment (PPE) must be worn.

The maintenance and operational check of equipment is often considered mundane and is completed in a lackadaisical manner. Although routine and very repetitive, these procedures ensure that the equipment is properly cared for and ready for use at any time.

This edition of the Report of the Week highlights what can happen if you don't check your equipment before use and emphasizes the importance of using PPE. In Report [12-076](#), personnel experience an equipment problem and were enlightened on how it could have been prevented.

*"We had a reportable mishap while operating the power saw. The incident occurred when firefighters were performing hands-on training with the saw. About 30 minutes into using the saw, a firefighter wearing full PPE was using the saw to cut a wooden truss assembly that was scrap material. As he was cutting the material the entire saw head/blade assembly operating at full RPM became detached and fell to the ground. No injury was sustained but the potential for severe dismemberment and injury was extremely high.*

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Based on this report, an [FYI bulletin](#) has been created to warn others about the importance of inspecting and maintaining equipment. Posting this FYI bulletin in your station is encouraged and recommended.

This report should stimulate lively discussion regarding your equipment check program. Are you really conducting an in depth inspection that will uncover deficiencies or the problems associated with a lack of maintenance? The following questions should be of assistance in a review of your equipment maintenance program and operational checks that ought to be in effect in your department:

1. Do you have an equipment maintenance procedure? If so, who performs it and what is the process to report the issue?
2. Do you conduct regimented equipment checks? How often? Do you rotate the duties among different personnel?
3. When a deficiency is found with a piece of equipment, how is it reported? Are all personnel notified about the problem? When something is in need of repair, where is it done? In-house or sent out to the manufacturer?
4. Are personnel required to wear the appropriate PPE during the operational checks?
5. Do you train on new equipment prior to it being placed in service? Are the manufacturer's operating and maintenance manuals part of the training program? Are the manuals easily available for personnel to review?

Operating a piece of equipment in a competent manner involves not only understanding how and when to use it, but also, more importantly, knowing that it is in a safe and operating condition prior to its deployment. This can only be achieved when a consistent and detailed maintenance and thorough inspection program is in place and utilized.

### **Related Reports – Topical Relation: Equipment Maintenance**

[09-910](#)

[06-614](#)

[05-199](#)

[11-390](#)

Have you avoided a near-miss because you took the time to perform equipment checks? Submit your report to [www.firefighternearmiss.com](http://www.firefighternearmiss.com) today to pass on your experience.

*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.*

*If you would like to subscribe to the ROTW please e-mail [ROTW@firefighternearmiss.com](mailto:ROTW@firefighternearmiss.com) with "Subscribe" in the subject line.*

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