



Tilton-Northfield Fire & EMS



www.tnfd.org

Week of 4/24/2009

Phone: 286-4781

Vision

SAFETY

PROFESSIONALISM

**CUSTOMER
SERVICE**

Mission

DELIVER:

EFFICIENT,

PROFESSIONAL,

HIGH QUALITY,

COST EFFECTIVE,

AND TIMELY

**FIRE
SUPPRESSION,**

RESCUE,

**EMERGENCY
MEDICAL
SERVICES,**

FIRE PREVENTION,

**PUBLIC SAFETY
EDUCATION, AND**

**CODE
ENFORCEMENT.**

Chief Carrier's e-mail:
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Busy Couple of Weeks!

There has been a lot going on in the Lakes Region over the past couple of weeks. Certainly, the most notable was the Easter Sunday Conflagration in Alton. Captain Michaud's crew saw quite a bit of work on the west side of the fire. I was lucky enough to be asked to run the "Lessons Learned" session (critique) for them this past Wednesday night and received a good deal of information that otherwise might not have been available. The Communications Center will be compiling a report based on information from the fire department and the critique that will be available for fire department use, only. Keep your eyes open for that—it should be a valuable learning tool.

But, outside of 45 buildings burning in Alton, we've had our share of other notable incidents. The next day we had 10 acres of brush burn off of Philbrook Road. On Wednesday of that week we extinguished a fire involving the porch and a wall at 251 Main Street (check out that building and the one at 249! Very large!). Sunday night we responded to a small kitchen fire on Keasor Road. And, yesterday we responded to the 3rd alarm vacant factory fire in Franklin. All of that and we still had our "normal" calls, as well!

Having a couple of weeks like that helps to minimize complacency. Sometimes you just never know what the next call will be. None of us should ever say, "Aw, that will never happen," because it probably will. Most of all, the troops are happy. Everybody seems to perk up when we are busy and doing meaningful work. Everybody is having a chance to be involved and the experience gained is meaningful.



DARYL CARLSON/
CITIZEN PHOTO
TILTON-NORTHFIELD
firefighters clean up after
responding to a small porch
fire at 251 Main St. in
Tilton around noon Wednes-
day

Chief's Message

I Missed A Week!

Don't get nervous! It won't be a trend. Last week was a short week in the office. My son had an early release on Wednesday and then I took off early Thursday morning for the National Fire Academy.

I made the trip down to Emmitsburg, MD to attend the Executive Fire Officer Program Graduate Symposium. We registered Thursday evening and attended classes all day on Friday and Saturday, and in the morning on Sunday. And, back home late Sunday afternoon.

By far, the best part of the Symposium was a case study of the decision-making and leadership of General Dan Sickles at the Battle of Gettysburg. We actually traveled to Gettysburg by bus (20 minutes from the Academy). We assembled at the fire station there and listened to 5 battlefield guides set

the stage by talking about events leading up to that day in July of 1863. Then we traveled to the battlefield and made several stops, discussing strategy and tactics, positions of both armies, and outcomes. In the afternoon, we returned to the fire station where the group held a question and answer period with the guides and developed opinions of Sickles' actions.

I had been through the battlefield before. During one of my 2-week courses, a small group of us took a guided tour that was very interesting. This session, however, was much more in depth and specific. And, of course, it carried with it a message and a learning opportunity.

If you ever are down in the area, take the tour. It will be well worth it!

Other notable Symposium topics included: Keynote address "The Next Level" by Scott Elbin, author; a presentation giv-

ing us insight into Fire Prevention Safety and Development Research Awards; Lightweight Truss Construction and Fire Behavior Research presented by UL and the Chicago FD; Injury Prevention / Public Health; Ways to not "Lose" your employee; and, "Personal Accountability and the QBQ" by John G. Miller. All were extremely applicable to the role of the Executive Fire Officer. I am pleased I was able to attend and I feel the knowledge gained will be valuable to me and the District.

We are getting back into some great weather. I hope everyone has the opportunity to enjoy it! Have a great weekend!

And, we have been busy! 11 calls yesterday—plenty of work for everybody!

Chief Carrier



Alan MacRae/for the Citizen

FIREFIGHTERS

PERCHED in an aerial ladder truck train a stream of water onto a three-alarm fire which consumed a vacant manufacturing facility on Range Road in Franklin on Wednesday.

UPCOMING TRAINING OPPORTUNITIES

April 27, 2009	0900	Where are You Headed? Chief Carrier Center Street
April 27, 2009	0900	EMS Con Ed David Rivers Center Street
April 28, 2009	0900	Where are You Headed? Chief Carrier Center Street
April 29, 2009	0900	Where are You Headed? Chief Carrier Center Street
May 4, 2009	0900	Deal or No Deal Chief Carrier Center Street
May 4, 2009	1800	Scavenger Hunt / District Fam. Deputy Robinson Meet at Park Street
May 5, 2009	0900	Deal or No Deal Chief Carrier Center Street
May 6, 2009	0900	Deal or No Deal Chief Carrier Center Street
May 11, 2009	0900	Is Our BB Stuck? Chief Carrier Center Street
May 11, 2009	1800	Departmental Meeting Chief Carrier Center Street

Jake Brakes

This week's article is to provide you with a final follow up on our discussion of Jake Engine brakes and how they work. Remember Engine 3 and the Tanker are equipped with this system. Engine 1 is equipped with a slightly different system but does produce similar results. Engine 1 utilizes an exhaust brake build in to the exhaust system that has an automatic valve built in that restricts the flow of exhaust and creates back compression and slows the engine

A Jake Brake is an engine brake, also known as a compression brake, which is used to slow down a large vehicle. It is most often associated with semi-trailer trucks, or "big rigs." The Jacob's Company is credited with perfecting and marketing it and "Jake Brake" is a nickname that developed over time. The nickname became common for most types of engine brakes, much to the consternation of the Jacob's Company, since the Jake Brake or similar models often get bad publicity for being too noisy.

Diesel engines have greater compression than typical gasoline powered engines, and that compression is used by the Jake Brake to help slow the engine. A Jake Brake works by altering the operation of exhaust valves and the function of the pistons as they cycle up and down. The compressed air is then released by opening the exhaust valves as the compression reaches its highest point. This creates an explosive effect, which creates a draw on the engine's power, slowing it down.

The explosive effect can also create a good deal of noise, although the Jacob's Company believes that with its Jake Brake, the noise is caused not by the engine brake itself but by irregular modifications or ineffective maintenance of the exhaust system. Some people also believe that truck drivers just enjoy making noise as they cruise through town in order to draw attention to themselves. While this may actually happen at times, truckers most often use the Jake Brake in order to slow the engine especially on steep hills or downgrades.

Regular brakes can often become too hot when trying to stop the momentum of an 80,000-pound truck and trailer (36,363 kilograms) moving downhill, and the Jake Brake is a valuable tool in helping to slow a truck. Still, many areas have implemented ordinances disallowing the use of the Jake Brake due to the loud thumping or sputtering sound it can make as it slows the engine.

Without a Jacobs Engine Brake®

- (1) The intake valve opens and air is forced into the cylinder by boost pressure from the turbocharger.
- (2) Air is compressed by the engine piston. The energy required to compress this air is produced by the vehicle's driving wheels.
- (3) When the piston passes over top dead center and begins its downward stroke, the energy is returned to the piston (and to the driving wheels). Essentially no energy is absorbed and no net retarding work is done.
- (4) Normal exhaust stroke.

With a Jacobs Engine Brake®

- (1A) The intake valve opens and air is forced into the cylinder by boost pressure from the turbocharger.
- (2A) Air is compressed to approximately 500PSI by the engine piston. The energy required to compress this air is produced by the vehicle's driving wheels. Near top dead center, the Jacobs Engine Brake® opens the exhaust valves, venting the high pressure air and dissipating the stored energy through the exhaust system.
- (3A) On the downward stroke, essentially no energy is returned to the piston (and to the driving wheels). There is a loss of energy. This loss is how the retarding work is done.
- (4A) Normal exhaust stroke.

Maintenance: there is not much maintenance required for a Jake Brake and it would be done by an authorized dealer at a 3000 hour / 100,000 mile interval. If at any time the brake doesn't appear to be operating properly shut it off and call for repair or put the vehicle out of service.

Safely Home, Everyone, Everyday

Mike Robinson Deputy Chief