



TRANSPORTING INNOVATIONS

December, 2011

“INNOVATION” - What does that mean to you?

Innovation is the act of introducing something new (e.g., a new idea or method; a different or improved way of doing something). **To quote the late Steve Jobs, co-founder of Apple, Inc.:**

“Innovation comes from people meeting up in the hallways or calling each other at 10:30 at night with a new idea, or because they realized something that shoots holes in how we’ve been thinking about a problem. It’s ad hoc meetings called by someone who thinks he has figured out the coolest new thing ever and who wants to know what other people think of his idea.”

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Innovation and continuous improvement go “hand-in-hand”. It is important to continuously look for better ways to do things because

it eventually leads to greater efficiency and productivity. Even the most routine tasks become more interesting if you are reviewing and thinking about what you are doing and how you can make it better, safer, and/or more cost efficient.

Use your imagination and inventiveness, “Think outside the box”.

Network by sharing ideas and innovations.

Actively participate in the CI Program by submitting CI projects on a regular basis.



**SEASON'S GREETINGS
TO ALL!**



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**NEWSLETTER DEDICATED TO
INNOVATION AND CONTINUOUS
IMPROVEMENT**

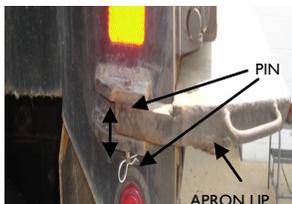
Slip-On Tailgate Apron Benefit

Division 8 has designed an easy to slip-on apron for the dump trucks. Any two operators can perform the installation or removal of the apron. The apron is easily slipped on and secured with a pin. Since this design requires no tools, any operator team who needs to add or remove this apron can perform this task themselves. The slip-on design only takes 15 seconds to install or remove; or 30 seconds in total for the 2 operators' time combined.

Typically the rear apron is bolted on, which requires 4 personnel and air wrench tools. Since air wrenches are required, the equipment team members may have to remove and install the rear apron. The operation takes about 2 minutes to install or remove; or 8 minutes for the 4-person team. However, in addition to this time there is delay to set-up the air wrenches and possibly operator delay if they need to rely on equipment to perform this task. Thus, the bolt

design leads to 15 to 30 minutes of delay.

In November 2011 the equipment SPEC committee approved this slip-on tailgate apron design after Central Safety's approval. For more information contact Mike Garner, Division 8 Equipment Superintendent or Billy Poole, Troy Subshop Equipment Supervisor.



Transporting Innovations
Margaret Anderson, Editor

Light Retrofitting Enhances Tar Kettle Safety

Some tar kettles in use by NCDOT have the light assemblies mounted low on the rear fenders. During a patching operation tar is spilled onto the assemblies, which obscures them from the view of motorists when the kettles are towed. In addition, hot tar spills onto the wiring harness of the lighting assemblies, eroding the insulation and leading to short circuits.

Gary Livengood of the Rowan County Equipment Shop repositioned the lights to a higher point on the tank. This now prevents tar spills onto critical safety components of the kettles and makes the lights more visible to trailing motorists when in tow.

In May 2011 the Specification, Modification, and Standardization Committee approved this retrofitting of light assemblies on all older tar kettles in the fleet that have lights positioned on the fenders. Equipment specifications now call for new kettles to have the lights mounted on top of the tank.

For more information and photos, contact Rick Mabry, Division 10 Equipment Superintendent and Chairman of the Specification, Modification, and Standardization Committee (SPEC) at rmabry@ncdot.gov or (704)596-2131, or Richard Love, Division 9 Equipment Superintendent at rlove@ncdot.gov or (336) 896-7040.



Grate Lifter Device Makes the Job Easier!

Metal grates weighing approximately 150 pounds need to be lifted and moved from catch basin drainage structures in order to inspect and clean the drain at a project site. Two people had to bend over to lift and move the grate, risking potential back injuries, as well as the danger of crushed fingers or toes.

In order to make this job easier,

John Tingle and Jerry Murray in **Division 13**, developed a device made of steel called the Grate Lifter. With the use of this device, one person can align the arms of the grate lifter over

the center of the grate, insert the clamps of the lifter arm through the slots of the grate and tighten, then lift the grate. Next steps include placing the foot on the slide plate on the back of the lifter, push the slide plate under the frame, set the grate on the slide plate, and in one motion, pull away from the drainage structure while lifting the grate off the drainage frame.

The safety benefits include less strain on the back and a reduced risk of pinched fingers and/or mashed toes. With the use of this

Grate Lifter, 8 to 10 grates per day can be moved and the inspection and cleaning of the drains can be completed at a faster pace.



Together Everyone Achieves More — TEAM

Teamwork in the workplace is important in striving to achieve the common goals and objective within an organization. When there is a problem, if all team members are involved, finding a solution to a problem is done in minimal amount of time. With the ideas given, drawing an action plan and assigning people to different tasks takes place faster.

When there is teamwork involved,

creative ideas can evolve out of the interaction. Team members communicate with each other and it is with this communication that ideas are passed on from one member of the team to another. Knowingly or unknowingly, team members learn from each others knowledge and thereby enhance their own knowledge, skills and capabilities.

Having good teamwork goes a long way in helping an organization in-

crease productivity and reach the ultimate goal faster.

“The achievements of an organization are the results of the combined effort of each individual.”

- Vincent Lombardi