



34<sup>th</sup> SAVMI Conference and Trade Show  
Two Rivers Convention Center  
Grand Junction, Colorado  
May 13-16, 2019

## Session Descriptions (as of 3/12/19)

### Monday, May 13

9:00 am – 3:00 pm

#### **Prinoth Advanced Winch**

*Prinoth Shop*

This will be an advanced, hands-on class covering the theory, set-up, maintenance and troubleshooting of the Prinoth winch vehicles. This year this class will emphasize more on the new generation of automatic winches.

**Class limited to 15 attendees total** (2 per ski area.)

*Prinoth Representatives*

12:45 – 4:00 pm

#### **PistenBully 400 & 600 Auxiliary Hydraulics**

*Whitewater*

Rod will cover theory, maintenance and troubleshooting techniques for the auxiliary hydraulics on the PB400 and PB600 models.

*Rod Elwell, Kassbohrer All Terrain Vehicles, Inc.*

#### **Hydraulics: How Does This Stuff Work**

*Kannah*

A brief tour into hydraulic theory followed by a look into how different hydraulic components function and what their purpose is within the system. The understanding of how components function and interact within a system will help mechanics better diagnose issues and operators better understand what is going on with their machine.

*Tom Nadelin, Wooster Hydrostatics*

12:45 – 2:15 pm

#### **Your Zaugg Questions Answered**

*Adobe*

This session will cover general maintenance and repairs of Zaugg pipe cutting machines. Learn how to keep your equipment in prime working condition as well as who to contact for parts and service. Adrian will review the proper use of equipment already in your inventory and other machines available for the quick, safe and efficient removal of large amounts of snow. Additionally, he'll share tricks of the trade on snow removal in the mountains to help make your job easier.

*Adrian Jezzzone, Zaugg AG Eggiwil*

#### **TBD Bus Session**

*Escalante*

Presentation description to come.

*Jeremy Evans, Mt. Hood Meadows*

12:45 – 2:15 pm (continued)

#### **Chemical Safety & Regulations: How They Affect Operations**

*Plateau*

Bill will explain the key steps in the safe use of chemicals and chemical safety measures. He will explain regulatory information, including OSHA standards, EPA & state regulations. Participants will learn how to obtain hazard & safety information, how to correctly store and label containers and proper waste storage. Bill will also address hazard communication and how to address your concerns.

*William Smith, Keteca USA*

#### **Strategic Hiring for a Strong Vehicle Maintenance Team**

*Dominguez*

One of the best ways to set your team up for success is by focusing on a combination of skill, personality traits and specific key indicators of high performance in your department. We'll spend a little time digging into some of these traits that will help you hire the best candidate for a strong vehicle maintenance team.

*Nikki Kendrick, Park City*

2:30 – 4:00 pm

#### **Snowmobile & Small Engine Maintenance**

*Escalante*

Maintenance and repair items related to snowmobiles & small engines. Topics of discussion include brake service & inspection, clutch service & inspection, suspension, rear ski service & inspection, fuel systems and summer storage.

*James Brett, Mt. Hood Meadows and*

*Mike Lavato, Beaver Creek Resort*

#### **TBD Oil Presentation**

*Plateau*

Presentation description to come.

*Dal Soglio, Inc. Representative*

#### **Developing High Performing Teams**

*Dominguez*

Teams that drive high performance and stimulate excitement to come to work are not as difficult to achieve as you think. A basic recipe for building these teams comes down to leaders that stick to common principles of feedback, clarity of expectations, reinforcing positive behaviors, building trust and dealing with difficult employees on the team. We'll go into detail about what you can do now to reinvigorate your vehicle maintenance team and you'll walk away with a plan of action to implement today!

*Nikki Kendrick, Park City*

## Tuesday, May 14

8:30 am – 5:15 pm

### General Welding Workshop

*Western Colorado Community College*

Learn the essentials of all welding and cutting procedures including MIG, TIG, arc welding, plasma cutting and oxy-acetylene welding and cutting. Kyle will conduct this workshop in both a classroom and hands-on setting. Participants must provide their own helmet, jacket, gloves, eye protection, coveralls and leather shoes. You must sign-up in advance. **Class limited to 10 attendees total** (2 per ski area.) **A no-show fee of \$125/per person will be assessed to those who neglect to attend or who show up without the proper protective gear listed.**

*Kyle Carhart, Carhart Customs*

8:30 – 11:45 am

### PistenBully 400 & 600 CAN, Drive, Tiller Electronics, Screen & Diagnostics

*Whitewater*

This class will cover the theory and maintenance for CAN, drive and tiller electronics, screens and diagnostics on the PB400 and PB600 models.

*Rod Elwell, Kassbohrer All Terrain Vehicles, Inc.*

### Heavy Duty Air Brake Training

*Escalante*

This session will focus on heavy vehicle air systems and foundation brakes, brake friction options, and air disc brakes. Grant will also cover wheel end maintenance; featuring Meritor, Bendix and Haldex information.

*Grant Kinkade, NAPA Heavy Duty*

### Troubleshooting Prinoth Drive Electronics & Faults

*Kannah*

This session will cover the use of your display to help you troubleshoot faults on Prinoth Tier IV machines. We will dig into what causes the faults, why they are there and how to deal with them.

*Prinoth Representatives*

### Prinoth Hydraulic, Hydrostatic & Schematics

*Prinoth Shop*

This class will cover the Prinoth Bison hydrostatic & hydraulic systems and schematics.

*Prinoth Representatives*

### PistenBully New Generation: Hydraulics & Electronics

*Kassbohrer Shop*

This session will be broken into two parts. The first part of class will cover the auxiliary hydraulic system in the next generation PistenBullys, including all new CAN valves and functions, new generation load sensing pump and positioning sensors. We will focus on theory of operation, troubleshooting and adjusting all pressures and settings.

During the second part of the class, will cover the electrical system of the next generation PistenBullys including layout of CAN systems, intelligent fuse devices, input output devices and touch screen menus and diagnostics. **Class limited to 25 attendees total** (2 per ski area.) Session repeated Tuesday @ 2:30 pm.

*Francisco Gallegos & Others, Kassbohrer All Terrain Vehicles, Inc.*

8:30 – 10:00 am

### Protect Your Investment: High Performance Lubricant Products in Low Temperature Applications

*Adobe*

This session will focus on the benefits of using full synthetic lubricant products in cold temperature applications. We will review technology advancements across the entire lubricant marketplace and why it is important to keep pace with what the OEM's are specifying. Steve & Henry will cover your application specific needs and provide key information about the technology within the products that allows your equipment to operate at top level performance in all conditions.

*Steve Frost & Henry Gonzalez, Shell Oil Products US*

### New Track Innovations & Tactics for Track Maintenance

*Plateau*

Andy & Jim will explain advancements in industry track technology and how to effectively implement these innovations to assist in track maintenance and summer service. Class participation is important to share different methods and points of view regarding track work. We all learn from each other!

*Andy Baillargeon & Jim Larson, Hans Hall, Inc.*

### Grooming Risk Management: Operations Manuals & Mountain Safety

*Dominguez*

This session will address some common risk management issues for grooming operations—including some recent lawsuits involving groomers and on-snow vehicles—and we will discuss operations manuals for groomers and best practices for snowmobile use. In addition, we will also look at some workplace-related mountain safety issues, including some recent OSHA citations and investigations involving grooming and mountain operational issues.

*Dave Byrd, NSAA*

## Tuesday, May 14

10:15 – 11:45 am

### **Lubrication & Grease Recommendations for Cold Temperature**

*Adobe*

Cold weather presents several challenges for maintaining ideal lubrication, which can affect equipment reliability. As such, exceptional oils and greases are essential for keeping the equipment running like new. From understanding the benefits of a well-engineered synthetic engine oil to ensuring the proper grease selection to withstand harsh conditions, this class will discuss how to achieve peak equipment performance in cold weather by using the proper oils and greases. The intended audience is maintenance personnel or managers who want to learn more about lubrication, specific products that will perform better in colder temperatures, and benefits of using synthetic oils.

*Christopher White, Alex Morrow & Altman Tsang,  
ExxonMobil Lubricants & Specialties*

### **Overhead Crane Inspections: Meeting the ASME B.30 Standard**

*Plateau*

Performing a pre-operation inspection and knowing the importance of the overhead crane equipment and system are key to being a proficient operator. Are you using the crane for what it was designed and manufactured to do? Making key decisions where a load is being carried, positioned and moved to is for the safety of people, property and yourself.

*Keith McPherson, Superior Industrial Supply*

### **Ski Area Roundtable**

*Dominguez*

Looking for a solution to a difficult situation you're having at your shop? Then this session is for you. Donny and Brent will lead a positive discussion to address the unique challenges and issues participants are facing at their ski areas.

*Facilitators: Donny Mushet, Aspen Skiing Company &  
Brent Clyncke, Beaver Creek Resort*

2:00 – 5:15 pm

### **Enhanced Battery, Starting Systems & Computer Controlled Charging Systems**

*Adobe*

This class covers advanced diagnostic procedures for batteries, starting systems, and computer controlled charging systems. A working starter board will be used to demonstrate battery and starting system testing. Demonstrated procedures will include battery testing, voltage and voltage drop testing, amperage measurements, and more. The discussion will also include information on battery maintenance, and battery system computer resets and registrations. Advanced charging system diagnostic procedures will be discussed and will include the use of embedded video examples. These procedures will have use for a variety of vehicles applications.

### **Prinoth Summer Maintenance**

*Kannah*

Participants will learn all the information, tips and tricks needed to ensure your Prinoth machines and tillers are serviced and set-up properly for next season.

*Prinoth Representatives*

### **Prinoth Tier IV After Treatment Systems**

*Prinoth Shop*

This session will cover the after treatment systems used on the Tier IV CAT and Mercedes powered machines. Learn what you need to know to maintain these systems and keep them functioning properly.

*Prinoth Representatives*

### **PistenBully New Generation: Hydraulics & Electronics**

*Kassbohrer Shop*

This session will be broken into two parts. The first part of class will cover the auxiliary hydraulic system in the next generation PistenBullys, including all new CAN valves and functions, new generation load sensing pump and positioning sensors. We will focus on theory of operation, troubleshooting and adjusting all pressures and settings. During the second part of the class, will cover the electrical system of the next generation PistenBullys including layout of CAN systems, intelligent fuse devices, input output devices and touch screen menus and diagnostics. **Class limited to 25 attendees total** (2 per ski area.) Session repeated Tuesday @ 8:30 am

*Francisco Gallegos & Others, Kassbohrer All Terrain Vehicles, Inc.*

## Tuesday, May 14

2:00 – 3:30 pm

### **PistenBully SNOWsat**

*Whitewater*

SNOWsat is made up of software and hardware components that are mounted in the snowcat itself. SNOWsat is generic and can be mounted in PistenBully or Prinoth snow groomers. As a result SNOWsat becomes one more system on the snowcat similar in fashion to the electrical or hydraulic circuits that must be maintained and repaired. Concentrating on the V1 system participants will become knowledgeable in how SNOWsat works, what components are involved, where they are located and how to troubleshoot and repair the system.

*Rod Elwell, Kassbohrer All Terrain Vehicles, Inc.*

### **Lubrication Fundamentals & Methods**

*Escalante*

As fuel and energy costs continue to rise, the cost of energy losses due to friction is rapidly overtaking the cost of equipment repairs. Jeff will explain how you can reduce these costs with quality lubrication and in turn increase your bottom line. This presentation is intended for mechanics, shop managers and any other team member who is responsible for working on the equipment or managing the fleet.

*Jeff Modellmog, Schaeffer Specialized Lubricants*

### **Shop Sustainability: Energy, Waste & Culture**

*Plateau*

Fritz will discuss vehicle maintenance shop specific sustainability opportunities including energy, lighting, waste diversion and employee engagement.

*Fritz Bratschie, Vail Resorts*

### **Ready, Set...Action Plan!**

*Dominguez*

Setting a foundation for a safe work environment before the tools are in hand. Learn how to take events from the past or within the vehicle maintenance world and create a better work environment in the shop or out on the hill. Better yet, learn how to anticipate needs, risks, hazards and successes by putting together a well thought out daily plan. It will take less time than you think and potentially increase your efficiency and productivity. Topics of discussion include:

- Necessary preparation (mental and physical) for any daily task
- Risk analysis tools for overall workplace safety
- Communication plans that are inclusive of the whole team/department
- When the unthinkable happens, how to learn and use new knowledge to improve safety awareness

*Trish Reynolds, Breckenridge Ski Resort*

3:45 – 5:15 pm

### **PistenBully Hydrostatic Drives**

*Whitewater*

This session will cover the basic theory, maintenance and troubleshooting techniques of the drive and tiller hydrostatic drive on all PistenBully models.

*Rod Elwell, Kassbohrer All Terrain Vehicles, Inc.*

### **Diesel Technology**

*Escalante*

Presentation description to come.

*Carey Pinkerton & Corey Spicer, Whitehall's Alpine BG*

### **Inspecting Your LIF-TRACK Machine**

*Plateau*

While there is currently no OSHA requirement that your lifts be inspected annually, it's undeniably a good idea. In this class you will learn how to self-inspect your LIF-TRACK machines. Keith will follow the guidelines offered by the Automotive Lift Institute (ALI) and provide you with the inspection forms that they publish. Although this is not a certification class, those that attend will be qualified to inspect your equipment, document your findings and be able to save the money it would cost to retain an inspection company.

*Keith McPherson, Superior Industrial Supply*

### **Managing Safety from the Middle Out**

*Dominguez*

Ever hear the phrase, "It takes a Village."? A strong safety culture cannot be executed effectively from the top down or from the bottom up. Those teams with a strong communication plan, involvement from all skill sets, and the willingness to change and try new approaches are those with lower employee incident rates. Why do we see this in work place research? It is human nature to care about a cause when it affects you personally. In order to have a personal stake, you must have a voice and platform for communication. Let's work through several different ways of fostering a positive and thriving safety plan with team buy in. Topics of discussion include:

- Understanding how positive safety culture is important your success.
- Creating a platform to start from: gauging where you are in terms of safety culture and where your team is.
- Identifying safety champions (discovering your most powerful assets on your team)
- Writing a safety plan.
- Tools to keep the culture evolving.

*Trish Reynolds, Breckenridge Ski Resort*

## Wednesday, May 16

8:30 – 11:45 am

### Prinoth On-Line Parts & TMS

*Kannah*

Presentation description to come.

*Prinoth Representatives*

### Prinoth Electrical Class

*Prinoth Shop*

During this session the Prinoth crew will cover the electrical systems, schematics and CAN Bus system used on the Bison, Leitwolf and Husky models. Learn about the different styles of schematics used on these machines.

*Prinoth Representatives*

### PistenBully Tier IV Engine: Theory, Diagnostics & Maint.

*Kassbohrer Shop*

This presentation will cover the Cummins Tier IV final technology including system layout and components, maintenance, troubleshooting fault codes and diagnostic tools and practices. **Class limited to 25 attendees total** (2 per ski area.)

*Francisco Gallegos & Others, Kassbohrer All Terrain Vehicles, Inc.*

8:30 – 10:00 am

### PistenBully 4.0 – 4.6 Ton Winch

*Whitewater*

This class will cover the basic theory, maintenance and troubleshooting techniques of hydraulic and electrical systems for the 4.0 through 4.6 ton winch.

*Rod Elwell, Kassbohrer All Terrain Vehicles, Inc.*

### Federal Regulations Affecting Your Shop & Fleet

*Adobe*

Learn what state and federal regulations affect you, your shop and your fleet. Brad will cover Federal Safety DOT regulations and answer your questions on the DOT laws.

*Brad Latchaw, Colorado State Patrol*

### Best Option Maintenance Practices for Your Equipment

*Escalante*

Options and solutions to help you keep your fleet running clean, healthy and more cost effective. Solution to help with better fuel quality, choosing the right lubricant for your equipment and optimizing oil drain intervals by using oil analysis and better filtration. Each option will also cover the maintenance cost savings so that each solution can be measured.

*Brett Winberg & Brent Krick, Combustion Technologies*

### Electrical 101: Back to Basics

*Plateau*

Mike will cover basic electrical theory in DC systems used in heavy equipment. He will demonstrate Ohm's law, how to troubleshoot using schematics, and will cover voltmeter basics to diagnose faults in electrical systems from high resistance, shorts, and faulty grounds. Additionally, he will cover inspection and maintenance of starting and charging systems, and maintenance of your vehicle's batteries.

*Mike Taft, Kassbohrer All Terrain Vehicles, Inc.*

8:30 – 10:00 am (continued)

### Rigging Basics & Safety

*Plateau*

Sling inspection before every use is very important. Hitches and angles are elements that slip our minds but will be addressed in ways to help you to consider before every lift. Capacities of chain, synthetic and wire rope will be discussed to help you identify the rigging being used. New products and industry innovations will be presented for consideration when choosing what rigging you are using in your own operations.

*Keith McPherson, Superior Industrial Supply*

10:15 – 11:45 am

### General Maintenance of Your PistenBully

*Whitewater*

Rod will review in detail the routine maintenance for most PistenBully models using the machine's maintenance guide. He will cover all aspects from "Break In" to "Summer Service" including tiller maintenance.

*Rod Elwell, Kässbohrer All Terrain Vehicles, Inc.*

### Tier IV from an "Outsider's" Perspective

*Adobe*

Presentation description to come.

*Chris Kubick, High Horsepower Diesel & Machine*

### Formulating Lubricants for Temperature Extremes: Performance Application Characteristics Explained

*Escalante*

This class will cover and explain the basic differences between finished engine oils, hydraulic oils and gear lubricants. A brief summary of the role base oil selection plays in achieving performance. What performance additives contribute and why hot and cold temperature operation brings unique problems. Materials will focus on selection of the best lubricant based on OEM recommendations, economics, climate and severity. The intended audience is anyone maintaining equipment, purchasing lubricants or managers who want to understand how to optimize time and cost to achieve more efficient operations.

*Michael Belluono, BG Products, Inc.*

### Filtration Trends

*Dominguez*

A presentation on modern filtration and its role in successful preventative maintenance.

*Paul Bandoly, NAPA Filters*

### Tire Chain Technology

*Dominguez*

A look at the many different styles and types of tire chains and a detailed explanation of their differences.

*Todd Smith, Delta Rigging & Tools*

## Thursday, May 17

9:00 – 11:00 am

### **Prinoth Roundtable**

*Prinoth Shop*

A roundtable discussion with Prinoth representatives to include what's up-and-coming for the 2019/2020 season and future product development.

*Prinoth Representatives*

### **PistenBully Roundtable**

*Kassbohrer Shop*

An open discussion with Kassbohrer representatives to include a tour of their new facility, a sneak peek at what's new for the 2019/2020 season, product improvements, spring parts specials and product updates.

*Kevin Moudy, Mike Taft & Karen Ruzicka,  
Kassbohrer All Terrain Vehicles, Inc.*