THE AMADOR SAWMILL & MINING ASSOCIATION, INC.

A non-profit 501 (c) (3) organization dedicated to preserving the sawmill and mining history of the Sierra Foothills in California

PO BOX 1062, PLYMOUTH, CA 95669 ♦ PH 209.245.3448 ♦ FAX 209.245.5097
EMAIL: INFO@AMADORSAWMILL.ORG ♦ WEBSITE: HTTP://WWW.AMADORSAWMILL.ORG
A 501(C)3 TAX EXEMPT NON-PROFIT CALIFORNIA CORPORATION

ASMA NEWSLETTER
Winter, 2017
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President's Report – January 2017

Since our last newsletter a lot of exciting things have happened. 2016 was a very busy year with many new things. We operated the sawmill at the fair and it was very successful. Our modified sawdust system worked well, and we were able to cut quite a bit of lumber. The only downside is that it was very hot. Jim Hall gave a brief safety rundown on sunstroke and heat exhaustion. He will be expanding on general first aid and safety concerns this year. Jim also updated and upgraded our first aid kits at the fair and restoration shop. He is also prepping a portable kit for when we work off site.

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Thanks to the efforts of Ed Arata and Mel Palmer, with a lot of help from our volunteers, we sold almost all of the lumber we had stored at the airport. This raised a record amount of money and helped to keep our budget on track. We are working toward another cut this spring. We'll let you know when plans become firmed up.

The restoration shop had another flea market sale. This time it was at the shop in Jackson and we raised over $1000.00. We also sold a number of restored machine tools. The restoration team continues to restore machinery for sale. Does anybody need a large drill press or radial arm saw? Work has also started in earnest on restoring the Fageol truck. The old lumber deck was removed and it was in far worse shape than we had thought. Some of the wood was so rotten that you could push your finger through it and pull nails out with your finger. It will all have to be replaced. We have also done a lot of work on the exhaust system, air brakes, and engine. So far it's mostly inspection and tearing things apart. We work on it every Wednesday at the Jackson shop, so if you can stop by and lend a hand.

This fall the board of directors voted to buy the sawmill machinery at the Andreason mill. A crew of volunteers led by Bill Braun was able to remove the equipment before the snow fell. It is a Frick mill similar to our mill at the fair, but with an overhead blade. It was powered by a Murphy diesel engine which Bill has serviced and has running. We hope to bring it to the truck show this spring and run it there as a demo. After a great deal of work by Bill and Cathy, it now appears we will be able to insure our 1967 GMC truck and drive it. It will be used to haul the donkey engine and the portable machine shop. It took an epic struggle but Bill finally got the Jimmy registered as an historical vehicle. Thanks to Bill and Cathy.

Very exciting news was the donation of the land and buildings of Knight Foundry to the City of Sutter Creek. The city now has to raise $325,000 to purchase the contents of the foundry. They are well on the way to doing that and as soon as information is available I will let you know how you can make a donation if you wish. Many of us are Knight Foundry alumni and very thrilled that it is finally going to be saved. ASMA has been working closely with the city on this and we hope to have a major role in the future of the foundry. This also presents a challenge to ASMA. The foundry could overshadow our other activities, particularly the sawmill. I'm confident we can overcome this but it will take a real commitment on our part. We can help make sure that doesn't happen by volunteering for week end work days at the sawmill. Bill continues to be in charge of sawmill operations and has regular weekend work days scheduled. There is a lot to do so please try to be there.

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On a related note, we really need to have some volunteers step up to the general maintenance and operation of the boiler. This is a critical area for us. It is a major safety issue and frankly without a boiler we cannot run the sawmill under steam. Bill and Tom Innes have a great deal of knowledge about steam operations and they would like to pass it on. They hope to have another steam operations class later this year.

All in all this year looks to be an even bigger year than last year with lots of new challenges and opportunities.

Joe Harralson—President, ASMA

ASMA Purchases Mill Equipment

By Phil Kreiss

In the Fall of 2016, ASMA purchased most of the sawmill equipment at the old Andreason Mill from Bud Lindau. Bill Braun and various volunteers made 14 trips up to the millsite to load and remove all this equipment and other relics given to ASMA by Bud. The equipment that came from this sawmill included: A Murphy diesel engine, the main driveline, dual arbors for the blades, the lower and upper husk (assembly that holds the blade), the two 60 inch sawblades, the log carriage that logs sit on to be cut, including the feedworks, cable drums and etc. The re-sawing machine and its drives are still at the mill because the roads became impassable with rains—they will be picked up in the spring.

Above: Sawmill equipment still in place at the Andreason Mill--the upper saw blade is not installed.

With the two tandem blades, stacked one on top of another, the mill can cut logs up to four feet in diameter: However, Bill feels that the carriage is too small to handle the weight of a 4 foot in diameter by 16 foot long log. Most of the equipment was manufactured by the Frick Saw Works.

The Murphy diesel engine is the star of the show: It is a straight line six cylinder engine, and each of the cylinders has a six inch bore and a 6-1/2 inch stroke; It has about 1102 cubic inch displacement, and runs at 16 to 1 compression. It is made with "dry liner" cylinder sleeves, which can be replaced if necessary. The radiator uses 28 gallons of coolant, and the engine holds 12 gallons of oil. The block and pistons are cast iron, so its total weight is over 6000 pounds (three tons!) Belt pulleys on the drive shaft run the external fuel and oil pumps. Equipment is run from a large pulley on the end of the drive shaft that will take up to 12 V-belts.
The engine was built in 1941, and rebuilt in 1979. Bill Braun did some necessary maintenance work at his shop and got it running—it runs really well.

To see the engine running and get some more interesting details about it, you can watch two Utube videos made and put up on the internet by Ron Edgar—here are the links:

https://youtu.be/is9pDKQJiFE

https://youtu.be/qMLLNlh1EPo

Let's Fill the Boiler With Water

By Tom Innes

Before we fill the boiler, the water must be tested and treated. What does that mean? Water is water, isn't it? Some folks think that if you don't want to drink the water, we don't want to put it into the boiler. How come?

Water we get from domestic and natural sources contain many chemicals, many of which can be harmful to the boiler. Natural sources such as rivers often contain ag runoff, high mineral content due to contact with various rocks and minerals, storm water runoff and he like. There are gases such as oxygen and CO2. There are a large number of organic chemicals. Domestic water has been treated so it will be safe for human consumption. Usually chlorine is added. Often fluorine is also added. The water is filtered but little else is done as long as the water does not cause health problems. No wonder more people drink bottled water.

As you can see, we just can't fill a boiler from an unknown water supply. We would like to use as water clean as we can. We can't use bottled water since several hundred gallons are a lot of bottles and we have to keep adding to the boiler as we operate. So what can we do?

First we need to identify those constituents in the water supply that are hazardous to the health of the boiler. We do use a domestic supply, so it is somewhat clean from the boilers perspective and we drink it.

For our operations, we want to control the ph level of the water and the oxygen content. The ph is an indication of the acidic or basic nature of various liquids, including water. Battery acid has a ph of 1 and lye a ph of 13. Neutral is 7. Maintaining a higher ph causes solids in the water to become less soluble and they in turn will precipitate out of the water. We measure ph using a chemical that will change color as a function of ph. We try to maintain a ph of around 11. We treat the water with a small amount of sodium hydroxide, or lye. This raises the ph. The domestic water supply has a ph of around 8. We treat both the boiler water and the feed water tank.

Oxygen causes corrosion of the metal parts of the boiler. This is very serious since it weakens the boiler and that is not good. We use an oxygen scavenger to reduce the amount of oxygen to a low level that will be harmless. At the last Rail Fair in Sacramento, Union Pacific engine 844 had a fire tube failure and 10 fire tubes separated from the rear tube sheet. The pressure was 225 psi and there was a crew in the cab. Fortunately, there were no serious injuries. So it can be a real world problem.

Sharp-eyed visitors will notice we add a general-purpose chemical to our water and that helps to control other water issues, such as foaming. It also helps to stabilize the boiler water chemistry.

What do we do when the boiler is not operating? When we put the boiler up for any length of time, we flow nitrogen through the boiler. This displaces any oxygen and helps prevent further corrosion. When we are through operating at the fair, we drain the boiler, rinse it with water, dry it and then seal it up. At that time we start the nitrogen flow again.

Water is not as simple as it may look. You can volunteer to help us with the two boilers and learn all this stuff. It is interesting work and the crew has a good time during operations.

Amador Sawmill And Mining Association Is Looking For Volunteers

A.S.M.A. is expanding its program in steam sawmill history: Volunteers are needed to learn how to operate historical exhibits. Do you want to learn how to operate a sawmill, a stationary steam engine, a steam powered donkey engine, or wood and oil fired steam boilers? If so, contact Bill Braun at (209) 245-3448, e-mail info@amadorsawmill.org. Or contact Joe Harralson at jbharr@directcon.net. P.S.—We also need volunteers to help us in Fundraising, Public Relations, Communications, Etc. too!

Update from the Restoration Team

By Ron Edgar

The Restoration Team has been very busy. Our building is very hard to heat and the roof leaks in several spots. So we have had to deal with a lot of cold miserable days. But just like the Pony Express riders in days of yore, we persevered. "Neither rain, nor snow, nor sleet, nor hail shall keep the postmen (restoration crew) from their appointed rounds"

Enough of that stuff, let's talk restoration. This year we have 6 students in our school restoration program. They are great students to work with and are all attentive and come ready to work. The projects they are working on are: a blacksmiths forge, 2 wood lathes, swing saw, and 2 table saws. They are tearing them down completely, fixing the problem areas and de-rusting before painting and reassembly.

We just finished the second 14 inch Logan Lathe and we will deliver it to the school shortly. We also are in the last stages of finishing the 21" Canedy Otto "camel back" drill press. This machine was all froze up from rust. We made the decision to just get it working correctly before we put it up for sale. The motor now works, the spindles turn and the power feed operates correctly. Whoever buys it will need to clean it up and restore the rest of it. Anyone interested???

Our next project will be to do the same with the 24" Buffalo Forge "camel back" drill press. That is unless someone within our group wants to buy it as is. We can deal!!!!

Joe Harralson has been heading up the restoration on the 1928 Fageol truck. They have the wood bed off and are in the process of dismantling the parts that need repair. You can see pictures of this by going to the new Facebook page that Chris Allen has set up.
https://www.facebook.com/amadorsawmill

I would like to also update everyone on our potential future involvement with Knight Foundry. As earlier stated, the city of Sutter Creek now owns the land and buildings at Knight Foundry. They have agreed to purchase the contents, machinery and historic artifacts for $325,000.00. This hopefully will be purchased by mid-April of this year. The Knight Foundry Alliance was formed with two members of the Sutter Creek City Council, the City Manager and two citizens from Sutter Creek. I was asked to be a member of this group and I accepted.

The primary objectives of this group are:
1. Raise money to buy the inventory, restore the facilities and remedy the environmental issues
2. Oversee the Foundry and provide guidance and support to the non-profit custodian that will be selected to manage the foundry.

The KFA (Knight Foundry Alliance) is in the process of conducting a Capitol Campaign to raise the necessary money. You'll hear more about this in the future.
Where do we (ASMA) come in? We are hoping to be the non-profit custodian that they pick to oversee this site. We have been looking a long time for a site in which to establish our Historic Living Museum. The foundry offers us an opportunity to expand our programs and make a big contribution to preserving history. Many of our volunteers have had some association with the Knight Foundry in the past. This would be our opportunity to help bring it back to life.

The process for selecting the non-profit custodian will take about 2 months.

STEAM FOR THE SAW MILL *or PILEBUTTS TO DONKEY PUNCHERS*

How two San Francisco Bay pile drivers became part of Living History in Amador County.
As Told By Tom Innes and Alan Langmuir

In the previous newsletter, we told how the 2 pile drivers were towed up Suisun Bay, under the Benicia bridge and finally reached Pittsburg, CA.

Here we are continuing the story as written in the 2004 Booklet *"Pilebutts to Donkey Punchers:" Installment 7—From Pile Drivers to Steam Donkeys.*

CHAPTER 3: THE SALVAGE JOB

After the pile drivers arrived in Pittsburg, the next phase in the transformation from pile drivers to steam donkeys began.

For 5 weeks, volunteers worked long, hard hours carefully removing the steam equipment from the barges and transporting the "treasure" to Amador County. Many challenges had to be overcome, including moving the salvage operation from a dock to an offshore site to avoid putting the marine construction yard insurance at risk.

Pile driver rig #3 was disassembled near a marine construction yard. The volunteer crew worked for days cutting bolts and carefully extricating the boiler and winches. A crane from the construction yard helped offload the steam equipment onto a landing and waiting trucks.

Meanwhile, pile driver #2 was anchored offshore near a slough and was the center of a flurry of a different type of activity. The Port of SF had sent their historian and a crew of photographers to document the last of the working steam pile drivers in California. Just in time before it was disassembled.

After finishing the salvage of rig #3, the volunteer crew used a small tug to commute to and from rig #2 each day to begin the disassembly work all over again, only this time they were anchored offshore near the shallows of a slough in the delta. A crane barge offloaded the equipment from the pile driver barge to be shuttled to the marine construction yard.

After the barges were stripped of the steam equipment, but still with their wooden framework towering overhead, they were sold to marine businesses that had assisted ASMA in the towing and salvage process. The funds would be used to restore the steam engines & winches and convert their configuration into logging steam donkeys.

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Participants in the salvage job:
Grunts: Richard Hansen, Jerry Virtue, John & Frank Tower, Bill Braun, Dave Sanders, Alan Langmuir, Jim Allen, Ken McCoy, Jim Headd, Chris Tomasovich.

Trucking: John Tower, Bill Braun

Logistics & foreman: Bill Braun

Photo Left to Right: Al Langmuir, Tom Innes, Richard Hansen, Bill Braun, Chris Tomasovich.

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Photos from the Fair

July 2016

It's been a long time since the Amador County Fair in July, but I hope you find interesting, this sampling of photos: I know its hard to believe now that we are in winter, but temperatures at the fair were over 100 degrees—The first photo shows a spectator cooling off in our water misters by the green chain. Photo 2: John Tower and Jim Headd rolling logs onto the carriage with Peaveys. Photo 3: Dave Bibby sharpening the saw teeth—we had to do this often during the four days of cutting. Photo 4: Bud Lindau and Kevin Jarret lifting a timber off the green chain to stack it. Photo 5: John Tower running the stamp mill at the Pokerville mine. Photo 6: Bill Braun and Joe Harralson tinkering with the Nordberg steam engine between shows. Photo 7: A 8 p.m night cut when the temperature had cooled off—John Tower, Dave Bibby, with Mike Presson helping in the shadows. Photo 8: Our intrepid volunteer, Mike Carpenter, cleaning up after a cut.

Photos by Phil Kreiss--We are now looking forward to the Truck Show in April and the 2017 Fair in July.

Cooling Off

Rolling Logs

Photos continued on Page 7……

More Fair Photos—Continued from page 6……..

Sharpening the Saw

Lifting Timbers

Pokerville Mine

Nordberg Steam engine

Night Cut

Cleaning Up

ASMA CREW PHOTOS—2016 Amador County Fair

Boiler Crew-- ***Left to right: Matt Maiers, Chris Knott, Frank Tower, Richard Cox***

Steam Donkey Crew—***Left to right: Tom Innes, Richard Hansen***

Pokerville Mine Crew—***Left to right: Dave Bibby, John Tower, Jim Headd, Alex Sharp, Frank Tower***

Mobile Machine Shop Crew—**Left to right: Mel Palmer, *Dave Linquist, Jim Hall, Joe Harralson, John James***

Continued on page 9…….

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P.S.—we also need volunteers to help us in Fundraising, Public Relations, Communications, Etc. too!

Sawmill Crew-- Standing in back row—Left to right: Richard Cox, John James, John Tower, Ron Edgar, Mel Palmer, Bud Lindau, Ken McCoy, Mike Carpenter, Elaine Carpenter, Eddie Oneto, Mike Presson, Kevin Jarrett, Matt Maiers.
Sitting—Left to right: Alex Sharp, Bill Braun, Joe Harralson, Dave Bibby, Jim Headd, Frank Tower, Chris Knott, Jim Hall.
Missing from photo: Richard Hansen, Tom Patten, Cliff Carpenter, Phil Kreiss (behind camera).

Upcoming Events:

DATE	TIME	EVENT
2nd and 4th Sat. each month	Starts 8 A.M.	Workdays at Sawmill—Contact Bill Braun at: bbraun@hughes.net or 209-245-5097
February	To be announced	Sawmill in operation to cut lumber for sales—public invited
March	To be announced	Steam Safety Workshop
Sat. April 29	8 A.M. to 6 P.M.	Sawmill in operation at the Antique Truck Show—Fairgrounds—Setup day on Fri. April 28
July 27-30, 2017	11 A.M. and 3 P.M.	Amador County Fair—Sawmill in operation—2 shows daily, plus night shows on Fri. & Sat. at 8 P.M.
Weekly Every Wednesday	Contact Ron Edgar For Times	MACHINE RESTORATION GROUP Workdays—Contact Ron Edgar at: 4edgars@msn.com
First Sat. in Nov. November 4,2017	To be announced	Volunteer Potluck Dinner—Amador Co. Fairgrounds

Photos Courtesy of: Page 2-Phil Kreiss. Page 4-Phil Kreiss. Page 5 & page 6 upper-Tom Innes, Alan Langmuir. Page 6 lower-Phil Kreiss. Page 7-Phil Kreiss. Page 8-Phil Kreiss. Page 9-Phil Kreiss.

Contributing Editors: Page 1-Joe Harralson. Page 2—Phil Kreiss. Page 3-Tom Innes. Page 4-Ron Edgar. Page 5 & 6-Tom Innes, Alan Langmuir. Page 6-Phil Kreiss. Page 7,8-Phil Kreiss. Page 9-Phil Kreiss

Production: Phil & Barbara Kreiss