

Lisa Kimberlin, our latest Life Member!

The CallBoy February 2024

Pat Young CallBoy Editor 10349 Glencoe Drive Cupertino, California 95014

The CallBoy Newsletter

Official Publication of the Golden Gate Live Steamers, Inc. Copyrighted 2024

Tilden Park	Pat Young, Editor	A 501(c)(3) Non-Profit
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Orinda, California 94563	February 2024	<u>www.ggls.org</u> or <u>www.goldengatels.org</u>

Board Officers

President:	Jon Sargent	510-233-6481
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Secretary:	Matt Petach	408-256-2883
Treasurer:	John Lisherness	510-647-8443
Safety:	Jerry Kimberlin	510-809-7326
Director at Large	:Sammy Tamez	510-706-5614
Past President:	Rick Reaves	510-479-3386

Ombudsperson

Lisa Kimberlin 510-214-2595

GGLS Trust Fund Members

John Lisherness Jerry Kimberlin (elected March 2015) Sammy Tamez (elected August 2022)

GGLS Committee Chair People

Bits & Pieces: Jeremy Coombes
Boiler Testing: Jerry Kimberlin
Building: Rick Reaves
CallBoy Editor: Pat Young
Dues: Lisa Kimberlin
Grounds: Andy Weber

Landscape: Jo Ann Miller, Bruce Anderson

Librarian: Pat Young Locomotive: Paul Hirsh Membership: Sammy Tamez Public Train: Walt Oellerich Refreshments: Walt Oellerich Rolling Stock: Rich Croll Security: Jon Sargent Shop Foreman: Rich Croll Signals: John Davis Technical Talks: Charlie Reiter Track: Jim McKibbin Train Storage Rental: Jon Sargent Web Site: Pat Young

Club Correspondence

All correspondence to the Golden Gate Live Steamers should be sent to the secretary, Matt Petach at this email: secretary@ggls.org

Membership

To qualify for membership, attend 2 monthly meetings. At the first meeting, please introduce yourself and obtain a membership application from Membership chairman or Secretary. At the second meeting, return your completed application, a signed release form, the yearly prorated club dues, together with the \$25 initiation fee and you are officially a member.

CallBoy

Articles, pictures, photographs, items for sale or any other information that would be of interest to the club should be sent to Pat Young, the CallBoy editor at phty95014@yahoo.com

Deadline for submittals to next month's issue is the 19th!

2024 Calendar of Club Sponsored Events

(This is tentative and may change)

02/11 General Meeting/Board Meeting

02/17 BAEM meeting

03/10 General Meeting/Board Meeting/swap meet

03/16 BAEM meeting

04/14 General Meeting/Board Meeting PLUS

Membership Appreciation Day & Swap Meet

04/20 BAEM meeting

05/05 General Meeting/Board Meeting

05/18 BAEM meeting

06/01 Redwood Valley Railway event

06/02 Redwood Valley Railway event

06/08 BAEM meeting

06/09 General Meeting/Board Meeting

06/15 GGLS Spring Meet

06/16 GGLS Spring Meet & Open House

06/22 PV&A, SVLS, GGLS joint meet at PV&A

06/23 PV&A, SVLS, GGLS joint meet at PV&A

07/14 General Meeting/Board Meeting

07/20 BAEM meeting

08/11 General Meeting/Board Meeting

08/17 BAEM meeting

08/24 Club reserved for Sammy Tamez

09/08 General Meeting/Board Meeting

09/14 GGLS Fall Meet

09/15 GGLS Fall Meet & Open House

09/21 BAEM meeting

09/28 Club reserved for John Smith

10/13 General Meeting/Board Meeting

10/19 BAEM meeting

11/10 General Meeting/Board Meeting

11/16 BAEM meeting

12/08 General Meeting/Annual Meeting/Board Meeting

12/14 BAEM meeting

Announcements

Walt Oellerich got a call from David Glaubinger who is recovering from cancer, and says "hello" to everyone.

The Chili run was a huge success and thank you to Sarah & all the others for organizing & managing it!

Jon Sargent met with the Red Barn Productions team that puts on the Dickens Fair. The Board will decide if we will loan 4 riding cars and the 4-4-0 from the clubhouse for the duration of the Fair, from Thanksgiving to Christmas.

They are also looking for volunteers to help staff it, guiding the public, working as conductors, etc. Dee suggested we put out donation boxes.

New Members and Guests

None.

Railroading Activities

Sarah Buhre was in upstate New York visiting a friend who happened to be living right next to a busy freight line. Sarah loved the sound of passing trains.

Matt Petach & Dee Murphy walked by the old Brisbane Bayshore rail yard and took a look at the old Southern Pacific railroad's round house. There are the old trestles underneath the foundations that were used to dump material into the bay and build up the land on which the yard was built. Apparently much of the material was debris from the aftermath of the 1906 earthquake, hauled out of downtown San Francisco and dumped into the bay as fill.

Walt Oellerich remembered seeing a long "deadline" of steam locomotives waiting to be cut up for scrap when he was young, including at least 3 cab forwards.

Minutes of the General Meeting

Officer Reports:

Matt Petach, Rich Croll, Jerry Kimberlin, Jon Sargent & Lisa Kimberlin was present as Ombudsperson. John Lisherness, Rick Reaves & Sammy Tamez were absent. President Jon Sargent called the meeting to order at 1003 hours Pacific time. It was verified that there was a quorum of more than 20 members present in order to conduct business.

President: Thank you for your confidence in voting the Board back in for another year.

Vice President: Someone complained to the East Bay Regional Park District about our handicapped parking spaces not being fully Americans with Disabilities Act (ADA) compliant. If this is going to be an issue, the club will paint them out and make them regular spaces instead

Ellen Thomson of Redwood Valley Railway, our next door neighbor, has offered to have her staff come to help dig out the hillside that collapsed against the Shattock Barn's shop building. The water seems to be draining off the road, into her tunnel and then into the hill above the shop. We plan to put a drain pipe in at the exit of the tunnel to divert the water down into our drain.

Secretary: Secretary Matt Petach & President Jon Sargent have the papers ready to open our new account with Mechanics Bank.

Treasurer: Treasurer John Lisherness assured us our finances are in good shape.

Safety: Nothing to report.

Director at Large: Nothing to report. **Ombudsperson:** Nothing to report.

Committee Reports

Buildings: Building Chairperson Rick Reaves was not present but do remember to keep your doors shut!

Grounds: The club will start doing some light pruning while trees are still dormant.

Ground Track: Jim McKibbin has been working with Jim Hague to line & level the track and blow the leaves from the track right of way.

High Track: The club is still looking for a replacement chair person.

Signals: John noted there are 4 phantom reds due to the rain; 3 on inner loop, one on outer loop. If you encounter them, treat them as yellow, slow and proceed cautiously.

Locomotives: Paul Hirsch reported that the RG#20 got its boiler tubes rolled last Sunday and a huge thanks to Bill Boller & a person named Elliot, who gave detailed information on how to roll tubes properly. We rolled 15 tubes, hydrostatic tested them and showed no leaks. Steamed it up on Thursday, and it ran with no leaks.

The RG#22 is running with no issues with its suspension springs but a supply line pipe leading to the axle pump was crushed. When it was replaced, its check valve failed to close which unfortunately allowed steam from the boiler to go back into the tender, blowing out a hose. Paul rebuilt the check valve and it is now working properly. Next up is repairing the Heintz Atlantic with some help from Chris Smith.

Rolling Stock & Shop: Rich Croll reported that the new passenger car from Accucraft is ready to be picked up. It's now a full sized car, rather than a shorty combine car and comes with a pair of couplers.

Rich Croll has been stockpiling supplies for the retaining wall in the shop. Please don't disturb them.

Public Train: Walt Oellerich thanked everyone who helped out with the Public Train last year.

Then he showed off his Chicago Rawhide #1 hammer, which belonged to his father who used it for building motors in 1924, a 100 years ago. He is donating it to the club to knock ice off frozen propane tanks. Charlie Reiter mentioned he has replacement leathers for the next larger-sized hammer.

Walt also showed a form that he used for making lead hammers.

Finally, he brought in a 24" pipe wrench, which Rich Croll immediately claimed for the club shop.

Landscape: Nothing this week.

Round House & Storage: Nothing to report.

Security: Someone didn't lock the main gate and we will review the security footage to identify the individual and remind that person that the last person out must lock the gate.

Membership: Chairperson Sammy Tamez was not here today.

CallBoy: Don't forget to let <u>callboy@ggls.org</u> and <u>secretary@ggls.org</u> know if you are changing or have changed your email address! CallBoy editor Pat Young has noticed some increasing number of email bounces.

Also keep those photos and articles coming. This is your newsletter, so share what you would like to see.

Website: Pat Young has updated the club's event calendar for 2024.

Library: Librarian Pat Young says that if you have articles from older issues you're interested in, let him know and he'll check to see if we have that issue for you.

Builders Group: Building Group coordinator Pat Young is working on asking 3D printer type folks about what they would like to see.

Old Business

None.

New Business

Jon reported that Lisa Kimberlin has been nominated for Life Membership, and has been supported by at least five other long-standing members. She has met the required membership time eligibility with the club organization, and is thus eligible. Walt Oellerich made a motion that Lisa Kimberlin be granted Life Member status and Becky Pereira seconded the motion. Since there was no additional discussion, the motion was called to a vote. By rousing acclamation, with no objections, the motion passed and Lisa Kimberlin became our newest Life Member.

Jon Sargent adjourned the meeting at 1039 hours Pacific time and we moved right into Bits and Pieces segment.

Minutes of the Board Meeting

Officers present: Jon Sargent, Matt Petach, Rich Croll, Jerry Kimberlin, John Lisherness along with Lisa Kimberlin Director-At-Large Sammy Tamez & Past President Rick Reaves were absent and President Jon Sargent called the meeting to order at 1124 hours Pacific time.

Old Business:

Last Board Meeting Minutes: Jon Sargent presented

the minutes from the December 10th 2023 Board meeting for approval, noting the only correction was the date was marked incorrectly on them. Matt Petach made a motion that we accept the minutes of the December 2023 Board meeting as emailed out, with the date corrected. Rich Croll seconded the motion. With no additional discussion, the motion was called to a vote. Since there were no objections, the motion passed unanimously.

Accuraft Passenger Car: John Lisherness presented Rich Croll the check written to Accuraft as payment for the new passenger car that Rich will pick up.

Shop Track Expenses: Jon Sargent updated John Lisherness on the anticipated expenses for the shop track. Drain rock was \$500 and lumber will be \$2,000 - \$3,000. John noted we have the money in the bank to cover it.

Mechanics Bank Accounts: Jon Sargent, John Lisherness and Matt Petach still need to get to the Kensington branch of Mechanics Bank to open the new accounts.

Tax Documents: Jon Sargent asked John Lisherness to find out why our 2022 taxes aren't showing up online.

Fidelity Charitable Check: John Lisherness reported we received a check for \$250 from Fidelity Charitable with no conditions on it. It is not clear who it was on behalf of.

2024 Dickens Fair: Jon Sargent updated the Board on the status of the agreement with Red Barn Productions to operate a train at the 2024 Dickens Fair. Evan Bautista will take the lead on the project and we will use his locomotive. Red Barn will pay for the track, insurance, fuel, etc. where GGLS would loan (4) bench riding cars for the duration from Thanksgiving to Christmas. We have an extra conductor car that could also be loaned if needed. We need to verify that the bench riding cars can make it around 30-foot radius curves and that the coupler height & sizes will need be compatible with Evan's engine.

A request was also made to bring the American 4-4-0 locomotive over to be on static display on the far side of the track from the loading area where it will be safely out of reach.

Matt asked about the use of the Lion but that's Walt Oellerich's personal engine and it's up to him if he wants to loan it for display.

New Business:

Membership Roster: Jon is updating the Dues spreadsheet by marking in red people who have passed away. Once that's done, Matt will update the Membership Roster and generate new files for the club

website. Matt will send out an email at the end of January to people who have not yet paid, warning them if they don't pay by March 31st, they will lose their membership.

Hose Bibb: Rich will update Andy Weber when the hose bibb is ready to be moved up the hill to its new location.

Property Insurance: Rich updated the club's property insurance document to add Mark Johnson's locomotive, his riding car & the new passenger car, and will add car numbers to make them easier to keep track of.

Safety Rules: Rich Croll will look at Train Mountain's rail bike policy to see if we can adapt it for inclusion into our safety rules.

NMRA Visit: The National Model Railroad Association (NMRA) asked about visiting us on March 10th and having lunch here. Unfortunately, that's the same day as our meeting, so the Board decides to say "no" to the lunch idea, but to still welcome them to come visit.

Pest Contract: John asked if we want to continue the \$95/month all-in-one pest elimination contract to bait and empty the rodent traps? The Board decided to continue the contract, and to keep reminding members to keep the doors closed at all times.

Track Panels: Jon talked about the track panels for the new triple barn so we can ballast the area. Once that's done, Rob Johnson's equipment will be moved out of the Roundhouse and Michael Smith will move into the Roundhouse, leaving the long barn for club equipment use only.

Jon adjourned the meeting at 1210 hours Pacific time.

Bits and Pieces

By Jeremy Coombes

Once again, thanks to Pat Young for some of the photographs Walt Oellerich was chatting with one of our members recently when the subject of rawhide hammers came up. So, this month, Walt brought in his father's hammer, which he believes to be at least one hundred years old. And speaking of hammers, Walt displayed the first tool he ever made as an apprentice tool maker, the mold for making lead hammers.

Walt has been going through his late brother's workshop and donated a brand new 24-inch pipe wrench. He stated that each month he will bring some tools to donate and asks that anyone who would like them to please give him a small donation, which he will in-turn donate to the club in memory of his brother.

Thank you Walt! A wonderful way to get the tools into hands that will use them, and honor your brother.

Paul Hirsh was solving a stuck check valve issue on the club's RG-22 locomotive when he noticed the copper water line between the axle pump and the boiler check valve was a little bit restricted.



Actually, it was crushed almost flat. He paused for a brief moment to ponder if this might be the root cause of several issues, and discovered the original routing of the line positioned it to be subject to damage from the running gear. He then fabricated a new copper line and this time however, he made sure it was routed where there was no chance of a repeat occurrence. Although not fully tested at this time, Paul is confident this will solve several recent problems plaguing this engine. Thank you, Paul.



Rich Croll had a different kind of item to show this month. It is a tool for moving ballast gravel and is made from a light weight 55-gallon steel barrel. To provide additional edge support Rich fabricated and welded a rim made from ½ inch angle iron. So Rich, who's working on those freight cars while you're doing this kind of stuff?



Charlie Reiter displayed another interesting, but different, piece this month. In the late 1950's when Charlie was six years old, he received a Tonka truck set for Christmas. Over the years he passed two of the trucks on to other people, but for some reason kept the Ambulance. Fast forward to the 2020's and Charlie had been experimenting with running the truck on steam power. What else! A year or so ago he built power plant 1.0 but was not satisfied with its performance. Late autumn 2023, and Charlie decides it's time to make this thing work. So, after a complete redesign, version 2.0 took shape.

The 30-psi boiler is propane fired and power is from a small commercial vee twin steam engine. The propane tank was fabricated and welded from stainless tube and there is a pressure regulator inline with the burner. Next task will be to finish the steering & suspension. So now all of us know that Charlie still likes to play with Tonka trucks. I sure hope he invites me over to play too!



It took several hours to print in blue PLA and is comprised of two pieces. The sand compartment is just a box with a V-channel that directs the sand to the bottom. But it's the cover that makes it special. The words "Carpe Diem" is Latin and translates to "Seize the Day", but Pat thinks it really means to "Enjoy the Moment".

And of course, the member he printed it for would be our club plumbing expert Andy Weber. Remember, some assembly is required and is definitely NOT a reflection on anyone's habit.



Chris Smith displayed a picture of the family's Mikado & freight car. And no, that is not a photograph, but a painting in acrylics by Chris' mother Silvia.

All I could say was Wow! Obviously, there is considerable talent on both sides of that family.

Lubrication for the Live Steam Enthusiast

From Charlie Reiter

Let's first look at why we lubricate. No matter how polished, all bearing or sliding surfaces have a pitted rough surface. If you look with ever increasing magnification the shiny surfaces give up their appearance of polish and appear quite rough. It's a matter of what may be called averaging. The smoother the surface the more average the roughness is. The high points are worn down and the pits are smaller. These rough surfaces run against each other and you can see how galling can occur.

Lubrication fills up the pits and allows the two "rough" surfaces to float over each other. To give an analogy, the bearing surfaces are like a rowboat lying on the beach. In order to slide the boat a lot of force will be required. Of course a smoother boat bottom will lower the effort and once you get it going, the loosened sand will help by breaking the resistance. Then as you start to get wet sand under the boat everything comes loose with the water lubricant, and the boat floats onto the sand less water. There are a number of things going on but for our simple example the water is a lubricant allowing the surfaces to slide over each other.

A shaft at rest squeezes the oil out from between the surfaces on the side carrying the load. As the shaft starts turning that oil is redistributed to make a layer that separates the shaft from bearing, just like water separating the boat from the land, the shaft is running on the lubricant.

Lubrication is extremely important to all mechanical devices and the steam engine not only needs lubrication for all its moving parts outside but also its internal bearing surfaces. To this end lubricating materials are added to the stream of steam entering the cylinders. Special lubricants are required to adhere to the surfaces and stand the temperatures without breaking down. Steam oil, or more properly, "cylinder oils" are formulated to be sticky and to not mix with water. It's like a steam cleaner in there and since it is not being affected by water, it keeps that little bit of oil in between the surface of the valve & seat and the piston & cylinder.

Automotive lubricants will not do since they contain detergents specifically designed to clean out the dirt and capture water by emulsification after which the oil is then directed to the oil filter. If your steam engine oil is turning into a goop resembling a thick cream then your oil is mixing with water and it's the wrong lubricant. There are other lubricants that eschew a

relationship with water like Turbine oil but that is typically too light to provide the protection that a slide valve requires to minimize wear.

To get cylinder oil into the cylinder requires a "lubricator". For scale models there are two or maybe three options. The third option is not really a lubricator, just a method where there is a port in the cylinder where you can periodically add some oil when steam pressure is not present. This can take the form of a pressurized drip oiler or a hand pump. It's a classic method that was used on the very first steam engines and I have seen it used on small passenger carrying steamboats still today. The steam boat engineer said that "when the engine groans I give it a shot".

The other two & main types of lubricators are displacement types & mechanical pumps.

One class of displacement type is a hydrostatic lubricator but our size restrictions do not allow for a true hydrostatic unit as it requires about 8 inches of height or more. So we use a simple displacement type instead. This is a reservoir of lubricant with a metered connection to the steam line feeding the engine. When steam is present in the line it passes into the chamber holding the lubricant and since that area is significantly cooler, the steam condenses.

The condensed steam (water) sinks to the bottom of the container as it is heavier than oil and it "displaces" an equal volume of lubricant. The lube oil then oozes back into the steam line where it is carried along with the steam flow into the engine. Many different configurations exist, some with glass tanks so you can see the amount of oil, some with water drains & entry control valves to make it easier to manage, but all just allow water to displace lubricant into the engine. It is wise to take care in placing the lubricator connection so that lube oil will be distributed as evenly as possible between multiple cylinders and this of course applies to the mechanical type as well.

Mechanical lubricators are simple as well. The basics are a tank that holds lube oil with a small pump cylinder in it. The pump is actuated by some reciprocating motion taken from the engine. This is where it becomes complicated and many many designs have been put forth to harvest the mechanical motion, and then limit its action to deliver only a tiny bit of oil with each stroke. The most common method uses a ratchet to move the pump a tiny bit with each successive pulse of motion. The ratchet has been displaced somewhat by rotary clutches but the LBSC type, as it is known, appears to be preferred. Like the displacement type the mechanical pump is a model of full size practice and many ratchet driven pumps are

used on locomotives. The last part of the mechanical pump is a check valve to try & keep the steam pressure from emptying the oil tank in one shot and good design calls for a reliable check valve to be installed between the lubricator its delivery point.

Speaking of that, the delivery should be after the throttle and in a good location for balancing the delivered amounts of lube oil. "Textbook" installation of a lubricator calls for the oil delivery line to protrude into the stream of steam so that the high velocity steam causes the oil to break up into tiny droplets. This keeps the distribution of oil more even but in our normal size constraints it is difficult to accomplish and considering that we tend to "over oil", just getting it into the engine seems to be enough.

Keep in mind that "back flow" of oil into the boiler is not a good idea. Although not as critical in our little boilers, it can cause problems and the vacuum that is created as a sealed boiler cools can not only refill water from the tank but pull oil from a mechanical lubricator. Being connected after the throttle also means that a displacement type is not running when the engine is stopped.

Lubricating mechanical parts is another area with lots of options where you can use many different oils and greases. Depending how the engine has been set up there may be grease fittings or oil cups or even just holes located near the part to be lubricated. But don't be tricked by the lack of a fitting or hole, sometimes people forget to provide proper locations and you are stuck with dripping or squirting oil on, or into the mating surfaces of the rotating or sliding parts.

For mechanical lubricating the range of lubricants is large and oils come in many grades & viscosities. Automotive lubricants are easily available and most any range of viscosity will do. It's a matter of what you're comfortable with. Sewing machine oils are a bit too light for most of our uses. Light lubricants tend to run off surfaces but as long as there is a ready supply, the case can be made that that runoff is carrying away dirt & worn metal.

Incidentally the black we associate with dirty oil is largely the metal particles that have been worn from the "rough" surfaces and they are physically too small to reflect the light that hits them so they appear black. Heavier oils cling to the surfaces better and probably the best crosshead oil would be a wey oil, thick sticky oil formulated to cling to the sliding surfaces of machine tools. That sounds like a description of cylinder oil and yes, that works well. In fact I have read in numerous cylinder oil specifications the recommendation of it being appropriate for lubricating worm gears.

WD 40 is not a lubricant. The WD stands for "water displacement" and legend has it that it was the fortieth attempt at a formulation that would displace moisture from a surface to prevent corrosion. The oils in it are so light that they evaporate and leave an uncoated surface that then in fact corrodes even faster. WD40 is meant to be followed up with another protective coat. A lot of its claims to lubrication is that the solvents in it soften and redistribute the existing oils in the bearing and essentially re-activates the lubrication. You can see that this will not be long lasting. Still it is useful and as long as you understand its limitations, it can be handy in your tool box.

Greases are simply oils that have been mixed with thickening agents to cause them to stick to surfaces and remain in specific locations. Quite often used in bearings & gear boxes, greases do what oils do without leaking out. Greases are highly engineered products and we do not have the expertise to select the ultimate grease but even a poor choice will typically achieve our needs. I am still working through a can of Korean war vintage mil spec surplus grease. But I also use a really high class grease made for jet aircraft use. This grease contains molybdenum disulfide and is probably what should have been used on the jacking screws of that ill fated Alaskan air flight. The point being that lubricant sitting on the shelf is not helping the machine.

Molybdenum disulfide is often used as a dry lubricant like graphite, "moly" has the attribute of embedding into those pits in the polished surface. Critical bearings and sliding components in satellites are often burnished with moly as any oil bearing lubricant will quickly vaporize in the vacuum of space.

The job of locomotive engineer includes assuring that the machine keeps running and classically, the engineer dismounts the locomotive and "oils around". This means he takes the opportunity to look the mechanism over, feel the bearings to make sure they are not overheating, and with his long spout oil can give any suspected joint a shot of lube. It's as much a part of running steam trains as wearing hickory stripe apparel and is much more important.