

QUINEBAUG VALLEY ENGINEERS



The Zagray Quarterly

September 14, 2017

PRESIDENT'S NOTES

The July show was very successful and the volunteer effort to support our shows has improved. We'll need to keep increasing that effort as our show attendance grows. There were, however, reports of some rowdiness after show hours on Saturday. We will need to be alert to curb any incivility and ensure that our shows continue to be family fun type of gatherings.

Three nominations have been accepted for election to director positions. Nominees are Mike Miner, Sean Mason and Connor Bishop. In addition to losing Dave Dziomba and Al Bezanson as directors, Merle Thoma magnanimously agreed to resign as director, adding a third open position for elections at the October meeting.

We've received several really nice donations. The largest was a Ruston engine from the Connecticut Antique Machinery Association. Other noteworthy donations included a woodworking lathe, joiner and band saw, all ready to run as soon as their electrical power units are hooked up. We also received a good running Miller welder/generator that was put to immediate use to complete the exterior exhaust for the Fairbanks Morse engine.

There's been a lot of activity at the farm this summer. The Atlas Imperial engine has been returned to the farm and placed on its foundation in the engine building. Work on it and the Fairbanks Morse engine has been progressing very well.

Hope to see you all at the October show.

FROM THE DESK OF THE TREASURER – Art Chester

Don't forget to send in your 2017 dues or stop in to the Event Center at the Fall show. If you are mailing it, make your check payable to QVEA, and mail it to 180 South Plumb Road, Middletown, CT 06457. There's no need to fill out a new membership form, but if you have changes to your address, phone number or email, please include the changes. A stamped,

self-addressed envelope is also welcome. Any and all donations beyond the dues are tax deductible and very much needed and appreciated!

If you have an email address, please email Dianne Tewksbury at tewksbdk@outlook.com to change from snail mail! That will save our printing-sorting-folding-mailing crew some labor, and save your club a **lot** of money, as well as being environmentally 'green'.

For those of you who contribute to the United Way campaign, QVEA is now listed as a charitable organization allowing you to direct your donation to us for the support and expansion of the Zagray Farm Museum. The Pfizer Foundation also has a volunteer program that provides QVEA with substantial donations each year, based on the volunteer work of members who work or are retired from Pfizer.

We received a \$50,000 unrestricted donation of Apple stock into our brokerage account from Dudley Diebold. Our thanks go to him and his continued generosity and support of the Zagray Farm Museum. That money will be earmarked for construction of the 200' museum building. I'm hopeful that additional donations will come in and make that project a reality, perhaps even as soon as 2018.

Stationary Engine Building

The engine guys wanted 10 foot wide concrete aprons complete with sockets on all three sides of the building for display of stationary engines on carts. Two of the three were completed prior to the July show, and the third poured shortly thereafter. Next we moved on to installing trenches for roof drains on all four corners and electric power to the back line for trailer hookups.

Comcast completed their installation, which was free as long as we signed up for internet for three years. Having internet access will allow for IP cameras to be installed, as well live video from our shows.

Atlas Imperial project

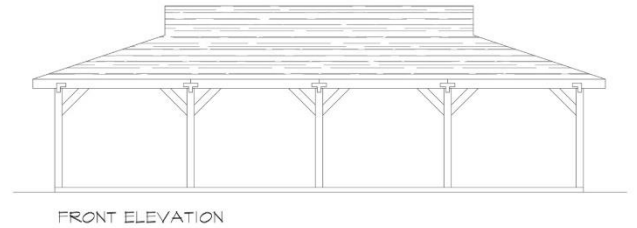
The engine returned to the farm in early August and was set outside for painting. Ed Bezanson painted it and a crew moved it into the building and onto the foundation. I've since been working on adding the brass and copper parts, while Karl Hansen completes some of the more intricate machining needed and Sean Mason installs the piping for the water and air start systems. It's looking great and keeps moving toward being operational.

Saw Mill

Still wanted – Logs for the saw mill. Even though we received a substantial number of logs, we are still on the lookout for more. 16'6" pine logs in particular that are 20 inch diameter or more on the small end will make good rafters. 12'6" logs of similar size will be used for 2X4's and siding. We have a good supply, but having extra material in stock would be nice.

Pavilion Building

We have the plans for the 36' X 60' building, the truss drawings, and a basic design plan for the post and beam part. We are waiting on the plot plan drawings to take it to the town for approval. While we are doing the preliminary work on a septic plan, it looks like it will delay us too much so we will submit that to the town at a later date. We are aiming to have the concrete in the ground this fall allowing the winter for the fabrication of the post and beam portion of the project. The project is estimated to cost \$35,000 without any well or septic work.



Woodworking Shed

Power and communications piping has been installed to the building and power installed to a sub panel. Interior work is still needed and being set-up. While we were trenching in that direction, we installed the needed piping to a point just outside of where the big museum building will be located.

Wanted!!!

A SMALL rock crusher, preferably flat belt driven, to complement our screening plant!!!

BELT DRIVE SYSTEM UPDATE - By Dave McClary

I decided it was time to try and do something about the slipping belt driving the line shaft at the machine shop. The motor jack shaft has a three step pulley, 3", 4.5" and 6" in diameter. Originally the smallest size was used, getting 44 rpm on the line shaft. That worked fairly well although some machines needed help when reversing. Thinking that was best for safety reasons, it was left that way until the belt started slipping. I spliced three inches into the belt to utilize the next larger pulley hoping that more surface area would provide more friction. It worked for a while with the line shaft at 66 rpm but this year it has been slipping quite frequently. So I removed the three inch splice piece and inserted a six inch piece. Putting the belt on the large pulley results in 88 rpm for the line shaft. I didn't know how this would affect the machines, or if it would appear too fast for safety. Starting it, the shaft started immediately with no slipping evident. The lathe ran fine and the 1893 Hendy shaper ran better as the shifting needed no help at all. Then I tried that 1850 Robbins & Lawrence iron planer which I was most concerned about as it needed help at each reversal to the cutting stroke. This time it shifted itself every stroke with no help from me. The only difference was some gear backlash rattling at the end of the reverse stroke. So I think the troubles I have been having are over at least until the rust wears off the pulley. The next step would be a wider jackshaft pulley and wider belt I think. It was good to see that 167 year old

planer running as well as it ever did. And the increased rpm was hardly noticeable. Even the drill press stayed calm and didn't throw a belt or stall when drilling.

At the Straw Hollow show, Joe Perko gave me a wide helical milling cutter for use on the Burke hand miller. That miller is using a homemade arbor 7/8" in diameter. The cutter has a 1" bore so a 7/8 x 1" sleeve was used to allow it to fit. Then I found another arbor on the shop doorstep, complete with spacers and nut. This arbor would appear to have been made for that miller or the Whitney hand miller which is missing an arbor. Thank you Connor Bishop. The picture below shows that cutter installed on the miller with the replacement arbor.



EQUIPMENT COMMITTEE **Connor Bishop & Ethan Bailey**

The most noticeable task that we worked on this summer was completion of the Fairbanks Morse exhaust stack. After careful planning and several weekends of torch cutting, grinding, and welding, the pipe is in place on the building and looks very nice. A cleanout port was added in the bottom of the pipe to take care of any water or oil buildup, and a hinged, weighted raincap was installed on the top to keep out the weather. The recent donation of an excellent condition Miller Bobcat 225 engine driven welder made this project much easier to complete, as much of the welding needed to be done in-place. Sean is doing plenty of work piping in air, water, and fuel to the engine as well. There are many small tasks yet to be done, but good progress is being made.



The Hendey lathe is installed and fully operational in the repair shop. I installed a quick-change toolpost along with several toolholders rather than using the older style rocker toolpost, so cutting tool swapping and centering will be easier for novice machinists. Our Bridgeport milling machine is still waiting to be wired in, but we have collected a good selection of tools to use with it once we do get it operational. We do still need a set of parallels; if anyone has a set that they would be willing to donate to the farm it would be appreciated.

Last year I took apart some shafts and sheaves on our painted Bucyrus-Erie 15B to replace bushings, worn shafts, and worn cable guides. I finally got all the repaired parts I needed and installed them back in the machine. Then, after a much needed oil and fuel filter change, the machine was fired back up after almost a year of being out of service. This machine seemed to be a favorite of spectators and operators alike, so it's great to have it operational again.

Nate Perzanoski has been continuing to work on replacing the clutch on the Allis Chalmers HD11. After several weekends, the old clutch was out, new parts were sourced, and will be re-installed soon. Also, he has taken an interest in fixing the brakes on our Clark forklift. When that job is completed we will have two fully operational forklifts, which will be very nice to have considering how much use the Case forklift gets.

In August, we received a donation from Connecticut Antique Machinery Association in Kent, CT. They had a Ruston-Hornsby 7XHR diesel engine for nearly two decades, and since it was sitting getting no attention they decided to donate the engine to our museum. It is a 40 HP single cylinder, 4 stroke, 10 1/2" bore by 18" stroke diesel engine that originally ran an ammonia compressor for refrigeration in a creamery. The flywheel/crank assembly was off of the engine when it was given to us; we will remove the flywheel from the crank so the crank can be checked for straightness and the journals can be polished. I mounted the base/cylinder assembly on an old air compressor cart we had on the farm so I could wheel it on my trailer and home for cleaning and restoration. We are missing several small parts, and if anyone has or knows of the following parts, please let me know:

- Air intake valve cover w/ decompression lever
- Fuel filter assembly
- Oiler ring than mounts on crankshaft throw

Lastly, we have been talking about increasing spectator safety in the sandpit by making a separate road and walkway. Our plan is to widen the road around the pit where we can by cutting down trees and leveling some earth. We will be formulating a specific plan in the near future, so when the leaves are off the trees we can get to work. Anyone interested in firewood from this project is encouraged to come to the farm on work weekends to help out and take as much wood as they would like. Keep an eye out for an email about work parties for this job, most likely after the Fall show.

Connor Bishop

Dianne Tewksbury
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APPLICATION FOR MEMBERSHIP

QUINEBAUG VALLEY ENGINEERS ASSOCIATION, INC. (QVEA)



NAME _____

STREET _____

CITY _____

STATE/ZIP _____

PHONE _____

E-MAIL _____

Dues are \$20.00 per person for one year, payable with application.
Dues include liability insurance at the farm.

RETURN TO: QVEA, 180 SOUTH PLUMB RD, MIDDLETOWN, CT 06457