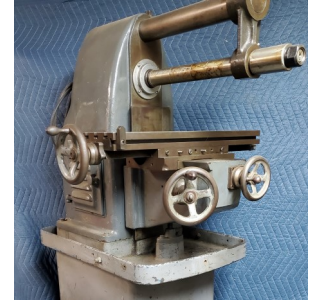


# SCHSM

Southern California Home Shop Machinists



Vernon horizontal mill—see page 7

SCHSM Newsletter March 4, 2023

## Current Officers:

(new terms started in March)

Douglas Walker  
President

Michael Miller  
Vice President

Frank Schettini  
Treasurer

Butch Sherrick  
Secretary

Ron Gerlach

## Club Events:

International Printing  
Museum tour

Date and time:

Sat., April 8, 10:00 A.M.

Location:

315 Torrance Blvd.,  
Carson, CA.

Cost: \$12 regular admission / \$10 Seniors

**Call to Order:** Club President Douglas Walker called the meeting to order at 2:00 p.m. The March 4, 2023 meeting of the Southern California Home Shop Machinists was held both live at El Camino College and online via Zoom. Ten members attended the meeting on Zoom and approximately 19 attended in person. No visitors or new members were in .

## Club Business

Club Treasurer Frank Schettini gave a report on the state of the club's finances. He reported that the out-going Treasurer, Jim Endsley, transferred the club's funds and records over to him. Jim Endsley will continue to facilitate the reservation for this year's club picnic site. Frank reported a current balance of \$1,508.63, with an additional \$100.00 being held by Los Angeles County as a deposit for our picnic site at Alondra Park. Frank also provided instruction on how members can submit their club dues to him. He said cash or a personal check made out to Frank Schettini, not SCHSM, can be mailed to him at his home via USPS or given to him directly during a monthly club meeting. Additionally, payments can be made via PayPal. Contact Frank for address info.

## Upcoming Events

**International Printing Museum Tour** (Meet at the museum)

Date: April 8<sup>th</sup>, 2023, 9:45 a.m.

Location: 315 W. Torrance Boulevard

Carson, CA 90745

Website: [www.printmuseum.org](http://www.printmuseum.org)

17 members have signed up.

Admission: \$12.00 per person, \$10.00 for Seniors

## Antique Engine and Tractor Show

Date: June 17-18, 2023 / June 24-25, 2023

Location: Antique Gas & Steam Engine Museum

2040 N. Santa Fe Ave., Vista, Ca. 92083

Website: [www.agsem.com](http://www.agsem.com)

(No plans for a formal club display/gathering as of this time.)

## BAR-Z Summer Bash

Date: First weekend in Summer (See website for exact dates)

Location: Rancho Cucamonga, CA

Website: <https://barzindustrial.com/summer-bash>

(No plans for a formal club display/gathering as of this time.)

## Presentations

### Die Storage Rack Upgrade - Excerpts from a presentation by Millar Farewell

Millar Farewell attends various technical schools in his area. One of his shop teachers asked him to modify a large A-Frame type rack that holds long bending brake dies in order to add additional storage capability. Millar agreed to design and make brackets and corresponding shelves out of sheet metal using the school's state-of-the-art CNC bending brake and Amada CNC laser cutter. He designed everything using Fusion 360, which has a wonderful sheet metal add-on.

To the right is a photo of the original A-frame rack. Note the trough-like shelves on the outside of the rack which nest the long dies of the bending brake. The project will add adjustable shelves of a similar design to the inside of the rack. Keyed end plates laser-cut from sheet steel (photo beneath the rack photo) will be used that will lock into slotted steel strips to allow for adjustment. The die shelving, as yet to be fabricated on the school's CNC bending brake, will have the end plates welded on. The additional slotted steel strips will also have to be fabricated and welded to the inside of the rack as part of this project. The dies will slide out from the end of the rack. To hold them in place when the rack is moved, latches will be added to the end plates.



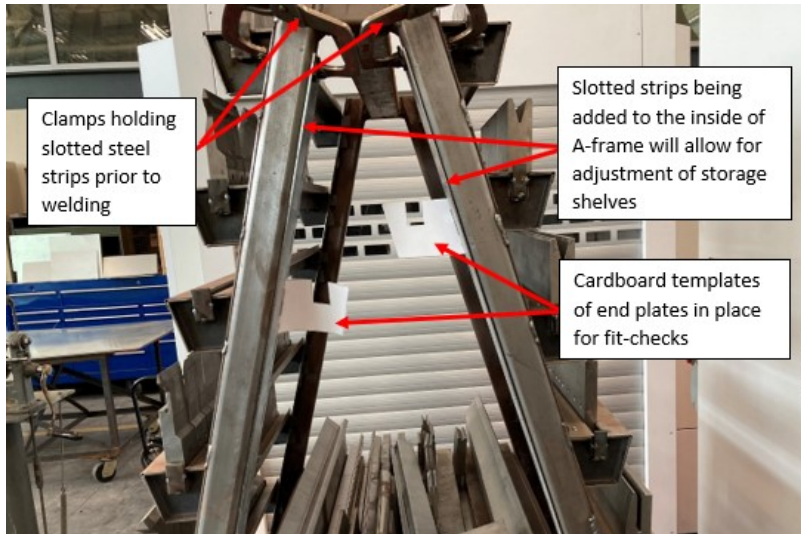
Amada CNC laser in action



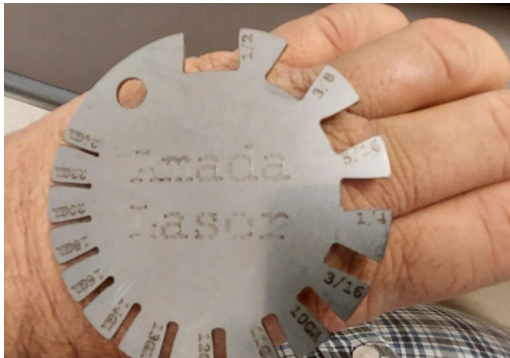
CNC bending brake

## Presentations (cont.)

### Die Storage Rack Upgrade - Excerpts from a presentation by Millar Farewell



Fitting of slotted adjustment strips in preparation for welding into place.



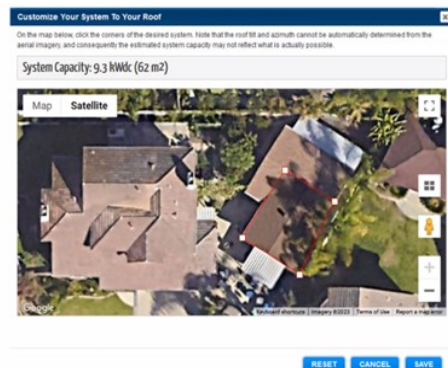
A measuring gauge made by Millar Farewell using the CNC laser. The machine leaves a kerf of 0.008". It is assumed that this kerf is compensated for in the software to produce the most accurate parts possible.

### Solar Panel Installation - Excerpts from a presentation by Ron Gerlach

Ron Gerlach performed a DIY solar installation on his house, and shared the steps of the project with the club. Starting with one of various online APPs available, Ron performed an analysis of installation size vs. power :

- Various online apps to help plan
  - **PVWATTS** ([pvwatts.nrel.gov](http://pvwatts.nrel.gov))
    - Enter address
    - Enter some basic info about system size needed
    - Use simple tool to draw area on roof
    - Interactive tool to play games with size vs power
  - **Project Sunroof** ([sunroof.withgoogle.com](http://sunroof.withgoogle.com))
    - Enter address and see potential of energy generation on your roof
  - Many more that do similar functions
    - Most are driven by installer organizations
    - Be ready for installer adds

PVWatts

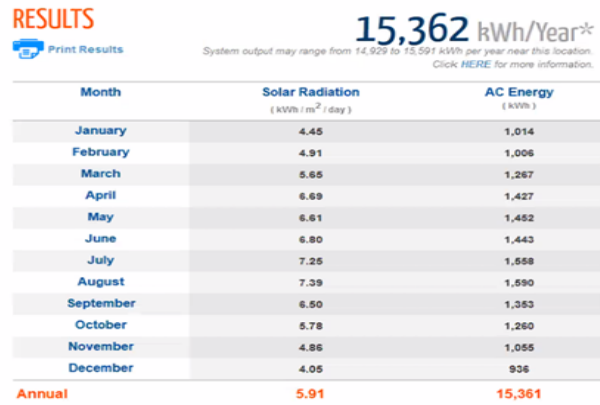


## Presentations (cont.)

### Solar Panel Installation - Excerpts from a presentation by Ron Gerlach

#### PVWatts

- One of the screens showing the potential solar energy and resulting AC energy from your roof



#### DIY Kit from GoGreen Solar

- 20 Solar Panels
- 20 Microinverters
- Rails and mounting hardware
- Everything that was not readily available from HomeDepot



#### The Racking System

- Mounts spaced 48" apart
- Must hit rafters for strength
- Flashing prevents leaks
- Note the rope for safety harness



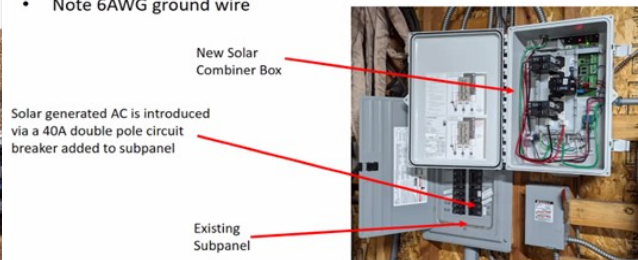
#### Close Up View of Microinverters

- Note cable management
- Inspector does not want to see anything hanging down and touching roof
- Note 6AWG ground wire



#### Indoor Additions (Combiner)

- 2 Strings of 240V AC get combined in Solar Combiner Box
- Combiner provides circuit breaker protection and Wifi monitoring link
- Note 6AWG ground wire



## Presentations (cont.)

### Solar Panel Installation - Excerpts from a presentation by Ron Gerlach

#### Panels Installed

- STATUS
  - Hardware is installed
  - System produces power but is still not switched into the grid
  - Waiting for Interconnection Approval from SCE
    - Called PTO, Permission To Operate
    - May take as much as 30 days
  - Also waiting for custom map of panels to appear on my phone monitoring app
- THE END



## Show and Tell



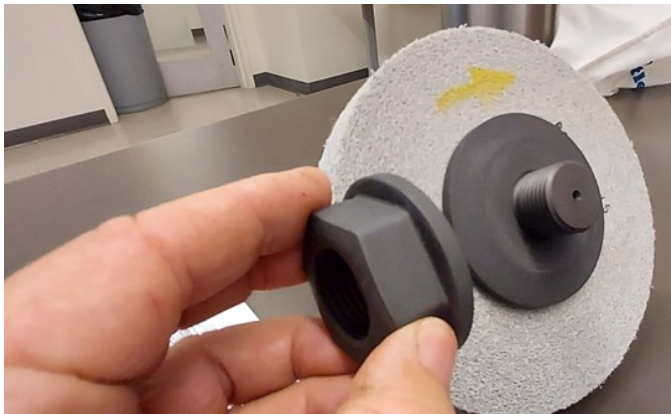
Allan Braun shared one unit of a large run of hydraulic spool valves he needs to make on his new ASPX-nano CNC lathe. It is called a "Swiss-type" lathe, and is designed to machine aluminum, stainless steel, Grade 2 titanium, bronze, brass and other material with high precision on a desktop. Because tooling for the lathe is hard to find, Allen is having to adapt common tooling to his needs. The parts Allan showed were impressive.



## Show and Tell (cont.)

Norm Wells displayed a few recent projects:

- A driver extension to allow for a long reach with jobber-length drill bits
- An aluminum adjustable stop for a mill or drill
- Multiple fixed stops made in one-inch increments slip over the threaded quill stop on his milling machine to allow quick setting of the stop without having to run the stop nut up and down a long distance.



Bill Nelson shared a ball of approximately 2" diameter that he made on his lathe using the ball-turning accessory he built from a kit. He also displayed two buffing wheel arbors he built, one left-hand thread and one right-hand. The arbors appear to have been parkerized, a surface treatment he used on a previous project which he shared with the club.

Pat O'Reilly shared a tip of using a small socket filled with JB Weld to hold onto a tap while tapping.

Jim Endsley quizzed the group on a measuring device used for superelevation of railroad tracks.

**When and where we meet:**

First Saturday of every month,  
2:00 p.m.

El Camino College  
Classroom AJ115  
1st Floor of the Industry and  
Technology Building  
16007 Crenshaw Blvd  
Torrance, CA 90506

The building is near Parking Lot  
B. Enter the campus from  
Manhattan Beach Blvd.

**We're on the Web!**  
[www.schsm.org](http://www.schsm.org)

## This Month's Featured Equipment (from top of first page)

Club Secretary Butch Sherrick's vintage horizontal milling machine built by Vernon Machinery Manufacturing Co. Estimated to be built in the 1940's, it was manufactured in Los Angeles, Ca. It features a variable-pulley speed control, operated by the handwheel on the base section. The spindle uses a No. 9 Brown and Sharpe taper. Vernon Manufacturing was either sold or merged with Sheldon Manufacturing in the 1950's.



Each month the newsletter will feature a different piece of member-owned equipment. Members are encouraged to participate. If you would like to do so, please email a photo and brief description to Butch Sherrick, club Secretary.

## Participation

SCHSM welcomes presentations by members or guest speakers on any subject related to metal working activities. If you have some knowledge or experience you feel may be of interest to our members, or if you know someone who may have something interesting to relate, please consider making a presentation at a meeting.

Presentations may be a little longer and more detailed than a Show and Tell, and may be accompanied by slides, video, or physical displays. Probably every member has some experience they can share, and this is the purpose of SCHSM. Please contact President Douglas Walker to make arrangements to give a presentation.

If you would like to contribute an article to this newsletter or make a comment, contact the Secretary, Butch Sherrick. He can be reached via the SCHSM Groups.io Group.

Please note that presentations submitted for the newsletter may be edited for brevity. To enjoy the entire presentation members are encouraged to attend the monthly meetings.