

Calendar

April

- 7 EAA Chapter 1129
Regular Meeting
6:30 pm

May

- 5 EAA Chapter 1129
Regular Meeting
6:30 pm
- 21 **Aviation Day 2016**
Young Eagles, Pan-
cake Breakfast

June

- 2 EAA Chapter 1129
Regular Meeting
6:30 pm

Great Tip...EAA Chapter 1129 is a non-profit organization. We are not specifically listed as a United Way agency, but if you specify "EAA Chapter 1129" on your United Way contribution form, the funds will be forward to your Chapter to benefit local aviation education and safety.

Chapter 1129 Web Site

The website has not been updated recently and is not very current. The chapter needs someone to take on the task of keeping it current.

Let's work together to make our chapter work.

Volunteer!!!

www.1129.eaachapter.org

Next Meeting:

When: Thursday, April 7th at 6:30 pm

Where: Tamarac Air Hangar- East Ramp

President's Hot Seat

March, 2016

By Jack Schnurr

A lot has happened in the last month. The hangar has been purchased, a contract has been signed with a pull tab operator, the snow is melting and the days are getting longer. Our monthly payments start in April 2016 and are about \$432 a month for 15 years. Some of our chapter members met on the 2nd of Apr at the hangar to look at the facility and discussed a lot of possibilities for improvements and social events. Bill Green has been designated by the board as the person in charge of all hangar operations, improvements and rules. He will keep the chapter current on his progress at meetings and through this monthly newsletter. Bill will present all of his suggestions to the board for approval. Any improvements in excess of \$3,000 require an approval of our membership before we can spend the money. I am sure that there will be ample opportunities to volunteer for work parties, the board requests that our members volunteer for as many projects that their talents and time allow. Please volunteer for work parties as they are announced, if we all work together we can significantly lower improvement costs and hasten moving into our new facility.

The board has voted to try a "fly your friends" project. We would like our chapter members that have working planes to think about filling your empty seats when you fly, with other chapter members who do not currently have a flying plane. This could mean a lot to those who love to fly but don't have a plane. This will require those who desire to be on the fly list, to put their name and phone number on a list that will be given to interested members that have a flying plane. Hopefully when our members with planes go flying they will call someone on the list and invite them to come along. This program could have a real positive impact on our membership.

Looking forward to a wonderful flying season this summer,

Thanks,
Jack

EAA Chapter 1129 Mission Statement:

Build, restore, innovate and educate to preserve Alaska's aviation heritage, and to promote Alaska's aviation future.



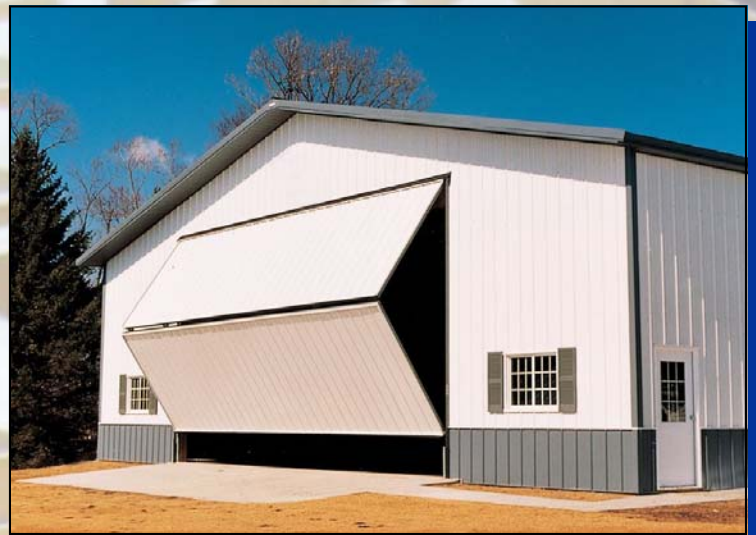
EAA Chapter 1129 Hangar. 2206 Frank Avenue. Driveway access will actually be from Tibor Street when spring comes and we get the snow and brush cleared away.

Hangar Update

By Bill Green, Hangar Manager

On Saturday several chapter board members met at our new hangar to tour the building and plan for our improvements. Syd Stealey also attended and gave a history of the hangar and offered some ideas on ways to make it better meet the needs of the organization.

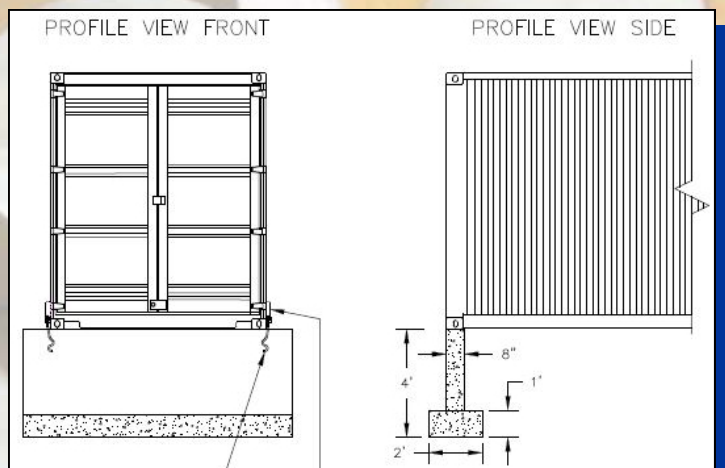
As many of you know, the East and West walls of the structure are steel Conex containers stacked two high. The roof consists of manufactured steel trusses with steel purlins covered by sheet metal roofing. Tim Henry of Arctic Engineering who inspected the hangar prior to our purchase, recommended that we install permanent concrete foundations for the Conexes and anchor the containers to the foundations. It is generally agreed that the foundation work will need to be the first thing that we do to our hangar this construction season. We



This s a standard Schweiss bi-fold door like the one we hope to install on our hangar.

are now obtaining estimates from several contractors for the concrete work. And we are actively seeking input from the chapter membership on ways that we could do the foundation work ourselves. A minimum of 6 cubic yards of RediMix will be required to make the 4 foundation sections. RediMix is priced at about \$110 per yard this year.

Another major consideration in this stage of the planning is the type of hangar door that we want. Even if we do not buy a door



Part of the detail of the footing plans as recommended by the building engineer.

now, we will make things easier on ourselves if we have a clear plan to work with. Knowing the type of door, bifold, multi section overhead, or something else, that we will later install, will enable us to build in an appropriate foundation this summer.



Interior of the main hangar bay facing Northeast. The airplane is Syd's. About 18 ft from the bottom of the trusses to the hangar floor.

In addition to the hangar itself, there is an existing concrete footing suitable for a 15 ft by 46 ft addition on the North side of the building. This might be the place to build a meeting room complete with kitchen and bathroom facilities. A space large enough to hold chapter meetings, yet compact enough that we could afford to keep heated in the Winter. Lots of potential here!

We will have an opportunity to discuss the hangar project at our upcoming membership meeting. Ideas, questions, input of all kinds will be essential to moving this new phase of our operations forward. The

combined knowledge and experience of our membership is without doubt our greatest asset as we tackle our chapter's biggest homebuilt project yet!

Book Report

By Vicki Domke, Vice President

One of the most useful books I used in the Parts store was the [Genuine Aircraft Hardware Reference Book](#). Genuine is careful not to call it a catalog because there are no prices or promises, but great descriptions, pictures, cross-references and explanations of how to determine sizes and applications to associated hardware. The book costs \$8, or is free with a \$75 order at the following address:

[http://www.gen-aircraft-hardware.com/site_tips.asp#how do i get a catalog](http://www.gen-aircraft-hardware.com/site_tips.asp#how_do_i_get_a_catalog)

I especially found the index in the back most useful for cross-referencing AN to MS to whatever is the latest acronym part number. Genuine does have a vast inventory and an efficient on-line ordering capability with instant feedback on price reductions based upon quantities ordered. I have had to call over the phone a few times to ensure the shipping method and costs. I highly recommend having Genuine's Reference Book in every builder's library and in every mechanic's toolbox!

Save the Date!!

Saturday, May 21st

**PANCAKE BREAKFAST • YOUNG EAGLES
• FAIRBANKS AVIATION DAY**

Getting More from your best Metal Cutting Tools: Files and Hacksaws

By Brian Sprague

Advantages

Files and hacksaws are often misused and under-appreciated in small shops, but they are capable of very fast work having accuracy acceptable to most applications calling for simple metal parts not using precision fits. In skilled hands, these tools historically were capable of producing one-off parts quickly, with accuracy enough to perform in engines and precision mechanisms with the advantages of being cheap, portable, and requiring no electrical power.

Proper Use and care

Files and hacksaws are similar in operation because they remove material in one direction only, so bearing down on the return stroke has an effect similar to running a drill in reverse; it cuts no metal and wears the tool prematurely.

The hardened teeth of files and hacksaws are vulnerable to breakage or dulling by contact with other hard or abrasive materials, such as forge scale, rust, dirt or grit, or incidental contact with hardened parts or tools, like other files, so they should be handled and stored carefully and used on relatively clean surfaces.

Files and hacksaws are used with a similar stroke involving the whole upper body and based on good footing and solidly held work. The tool should be raised clear or only barely contact material on the return stroke, and run smoothly and firmly on the work stroke. Attempts to work faster by moving the tool faster will fail-use the whole cutting surface (as much as possible) and work smoothly.

Common pitfalls

Clogging and pinning (scratching of filed surfaces by material embedded between teeth) can be remedied by chalking the teeth, and by regularly cleaning the teeth with a soft wire brush called a card, or by using a piece of flattened



The best high tension frame available in Fairbanks



Feature allows use of recip blades, also stores spare blades in frame channel

copper tubing to push out material parallel with the teeth, crossing the file. The soft copper forms itself to the shape of the teeth and plows dirt and waste from the gullets.

Matching hacksaw tooth pitch to material helps the saw cut quickly without damaging the blade or material. The rule of thumb is to make sure at least 3 teeth engage the material at any one time, so the thinnest piece cut with a 18tpi blade

would be 3/18 of an inch, or .167", while a 32tpi blade could cut very light material only .094" or effectively 1/10th inch. Running the saw at an angle to the work will engage more teeth and let you cut thinner material. Experiment with work holding and blade pitch and presentation to find a combination that cuts with the least chatter.



Comparison of different blade pitches; left to right, 18, 24, 32, 32. Blade on far right has been ground to allow curved cuts



Compared to a cheap frame that gives hacksaws a bad name. Blades are both 12"

Areas of Specialty

Files guided by hand do not easily form perfectly flat surfaces, but are very good tools for quickly deburring, radiusing, or blending edges or surfaces in metal. Files are also essential for cleaning up edges of broken or roughly cut parts, and are of course useful for sharpening tool edges softer than the file.

Hacksaws remove material very quickly for the work invested because they form a kerf to part waste away, like a cutting torch, rather than breaking it down entirely, like a grinding disc. The more accurately you can saw to a line, the less time you'll have to spend filing material away at a much slower rate.

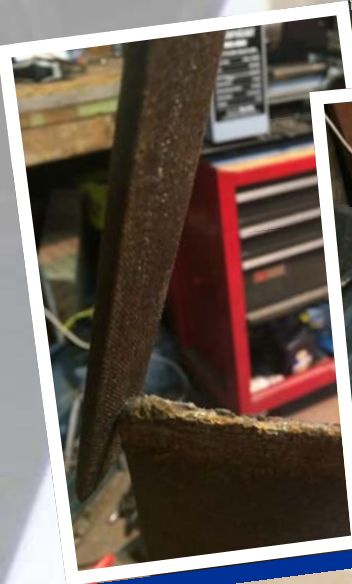


Section of broken teeth from cutting too thin material

Different strokes

For filing in tight corners or to prevent damage to adjacent surfaces, you can grind a safe edge in a file, removing the teeth, so that the face guides or bears on a surface without cutting, while the untreated edges remove material.

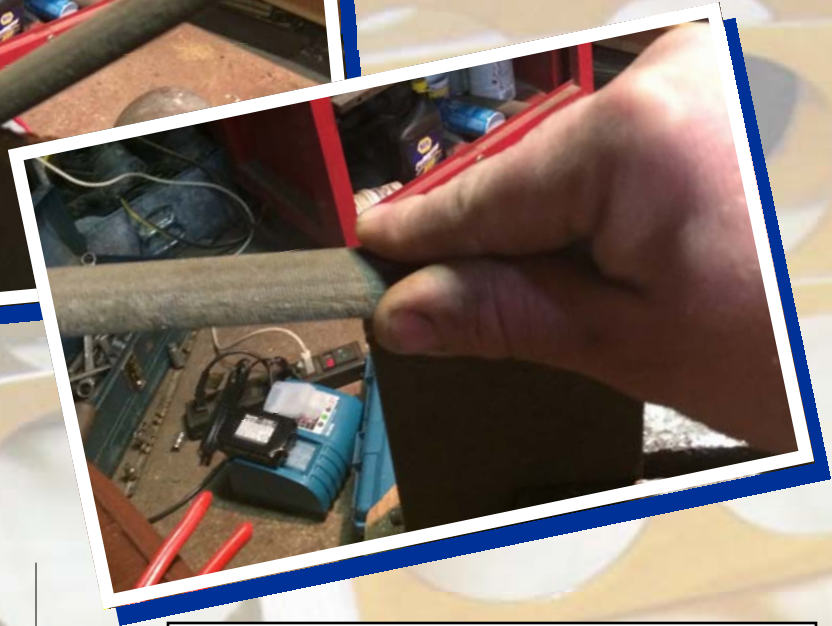
For radiusing, I picked up this stroke in an old hand tool manual that works very well, but takes some coordination. Those with machining knowledge will notice it resembles climb milling in operation. I have used it to successfully round galled shafts and remove dents and burrs from shafts, as well as putting cleanly rounded corners on plates etc.



First position



Middle



Final position of continuous stroke



Product on broken truck spring

It may help some users to know there are several "cuts" of file, the most common being "bastard", which is the roughest commonly available, and progressing through "second", "smooth", and "dead smooth".

There are also double cut files having cross-hatched teeth which cut more aggressively, and this term should be differentiated from "second cut" above, which denotes tooth coarseness.

Tooth coarseness also varies with file length, so that an 8" bastard cut may be as fine or finer than a 12" smooth cut, so if you can't find a smooth file, try using a short file. So far, I don't know of a convention precisely determining tooth fineness in files.

Great places to find good file selection in town:

- AIH
- Denali Industrial Supply
- Samson's Hardware



Shapes and cuts of files: 2 mill, half round, flat, square



Vixen file with curved teeth for aggressively removing soft material, pictured next to 12" mill bastard.

Pull Tabs are Here!

By Matt Kato

Chapter 1129 now has a State gaming permit for raffles and pull tabs. The pull tab adventure has begun, with the added possibility of raffles, and I'm sure we will all be interested to see how much income the permit will provide for our mission

statement:

"The support and growth of aviation through the delivery of education opportunities, scholarships, and guidance for new participants and the maintenance of infrastructure to support those goals."

To help provide a better understanding of what we can do with gaming income here is AS 05.15.150:

Sec. 05.15.150. Limitation on use of proceeds.

(a) The authority to conduct the activity authorized by this chapter is contingent upon the dedication of the net proceeds of the charitable gaming activity to the awarding of prizes to contestants or participants and to political, educational, civic, public, charitable, patriotic, or religious uses in the state. In this subsection, "political, educational, civic, public, charitable, patriotic, or religious uses" means uses benefiting persons either by bringing them under the influence of education or religion or relieving them from disease, suffering, or constraint, or by assisting them in establishing themselves in life, or by providing for the promotion of the welfare and well-being of the membership of the organization within their own community, or through aiding candidates for public office or groups that support candidates for public office, or by erecting or maintaining public buildings or works, or lessening the burden on government, but does not include:

- (1) the direct or indirect payment of any portion of the net proceeds of a bingo or pull-tab game to a lobbyist registered under AS 24.45;
- (2) the erection, acquisition, improvement, maintenance, or repair of real, personal, or mixed property unless it is used exclusively for one or more of the permitted uses; or
- (3) the direct or indirect payment of any portion of the net proceeds of a charitable gaming

activity, except the proceeds of a raffle and lottery,

- (A) to aid candidates for public office or groups that support or oppose candidates for public office;
 - (B) to a political party or to an organization affiliated with a political party; or
 - (C) to a group, as that term is defined in AS 15.13.400, or a political group, as that term is defined in AS 15.80, that seeks to influence the outcome of an election.
- (b) The net proceeds derived from the activity must be devoted within one year to one or more of the uses stated in (a) of this section. A municipality or qualified organization desiring to hold the net proceeds for a period longer than one year must apply to the department for special permission and upon good cause shown the department may grant the request.

These are the basics. If there are any detailed questions they can be researched for an answer. Or, Alaska Statute 05.15 Games of Chance and Contests of Skill can be accessed on line by going to www.tax.alaska.gov and hunting around.

We hope to receive a check each month. Rippy City on South Cushman is our pull tab Operator so go there to support your Chapter and have fun.

Fuel Drain Woes and No Go's

By Vicki Domke, Vice President

Our airplane fuel tank sumps generally have one of three common types of fuel drains; the Curtis drain valve has horizontal legs, the first Saf-Air has a round head and the second Saf-Air valve is flush mounted.



CCA-1550



CAV-160



The Curtis valves are most commonly used in the gascolator as part number CCA-1550. The rubber seal is NOT an o-ring. The seal is cross-sectionally a square and has not been available from Curtis for at least 15 years due to mechanics damaging the seat during replacement and liability due to this damage.

Saf-Air's most common fuel drain valve for the Cub wing tanks is part number CAV-160. The seal is easily replaced in the field with a standard o-ring. I carry a spare valve and a spare o-ring in my fly-away kit for field repairs.

The final valve is nicely flush mounted, but the seal is internal and is not replaceable. This valve is often used on the Cub right hand wing tank because it provides clearance to allow the swing up door to latch without hitting (and activating) a longer valve such as the CAV-160.

All of these valves are available in many thread sizes. The straight thread valves all include an o-ring seal around the base and the pipe thread valves seal via thread engagement. I also use a smear of gooey Teflon sealant on the threads for added sealing and only put it on well above the tip end to prevent contaminating the tip seal.

Aircraft Spruce and Specialty has an informative description on their website for all of these fuel valves at:

<http://www.aircraftspruce.com/>

Search for "fuel drain valves".

CLASSIFIEDS

For Sale:

Lycoming IO-360-A386D Angle valve 200hp \$25,000

Removed from a Mooney M20J, Rebuilt by Aero Sport Power, Kamloops, Canada, July13, 2001, 0 time, Aero Sport Power and original Mooney logbooks available, Prop governor installed

Modifications:

Single mag replacing single drive dual mag Second Ignition is a crank triggered electronic Geared lightweight starter, 40A Nipon Dense alternator (light weight), Injection Air Controller is bored and tapped for a return line. Aero Sport Power recommended this to improve hot starting. 1600 hours when removed from Mooney

All rebuild receipts available

1.5 hours at Aero Sport Power test. Test Log available. Laid up for long term storage- Inhibited

Annette Coulter
378-8180

From the Editor's Desk....

Calling for articles and photos!

Please keep in mind that we're always looking for good stories or photos to put in the newsletter! We try to send the newsletter out about a week before the regular meeting to help remind everyone of the date. But please send in photos or articles anytime to dunkleb@yahoo.com and I'll get it into the next issue.

Most wanted are project updates with photos! Come on guys and gals! The newsletter works better if you help! Send it in! If you aren't sure of the format or whatever, just drop me a note and I'll be happy to help you with it.



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Join our Chapter!
Membership is only \$15/year and there are many benefits.
Interested? Call or email Jack Schnurr - jschnurr@acsalaska.net