



International Cessna 120/140 Association

P.O. Box 830092
Richardson, TX 75083-0092

ISSUE 329

NOVEMBER 2005



In This Issue . . .

Convention Wrap-Up A review of the events, forums and talks from the Convention.

Awards Recipients Check out the awards from the Convention.

Aviation Hardware 101 - Bolts The latest installment of the Aviation 101 Series

High Notes* by Member Dorchon Forman. Convention wrap up and more.

Illinois to Nebraska by Member Carolyn Pasqualino . Check out this round about flight to Nebraska!

Buses, Buses and more Buses Member Eldon Larson tells us of his dedication in getting to the Convention

2005-2006 OFFICERS

Ken & Lorraine Morris, President
815-547-3991
Email: Taildragger7w@aol.com
Reddoch Williams, Vice President
850-863-3330
Email: reddoch@aol.com
Marty & Sharon Lochman, Sec/Treas
405-391-6773
Email: my140@mccloudteleco.com
Mac & Donna Forbes, Past President
336-226-4582
Email: mcforsbes55@bellsouth.net

BOARD MEMBERS

Lorraine Morris, Newsletter Editor
815-547-3991
Email: taildragger7w@aol.com
Denise Jackovich, Merchandise Coordinator
319-285-7296
Email: vbjfly@aol.com
Tina Visco, State Rep Coordinator
760-373-4433
tina.visco@earthlink.net
Jack Hooker, Member at Large
815-233-5478
Email: hoohar@mwci.net

STATE REPRESENTATIVES

ALABAMA-

Steve & Edna Earle Simmons
334-898-7376
Email: sesimmons@centurytel.net
Ken Spivey 205-979-5436
Email: kenneth.r.spivey@faa.gov

ALASKA -

Jason Mayrand 907-832-5614
Email: alaska120@yahoo.com

ARIZONA -

Curtis E. Clark 602-953-2571
Email: azskybum@aol.com

ARKANSAS -

Richard Gulley 501-954-9669
Email: richard@richardgulley.com
Bill Morgan - 870-239-4017
Email: brmorgan@grnco.net
Donnis Hamilton - 870-236-1500
Email: hamilton@grnco.net

BRITISH COLUMBIA -

Herb Hough 604-852-2240
Email: herb_hough@telus.net

CALIFORNIA -

Tina Visco 760-373-4433
Email: tina.visco@verison.net

CHILE -

Olegario Reyes - 56-2-2205917
oreyes@mi.cl

COLORADO -

Jack Cronin 303-333-3000
Email: jcronin@ix.netcom.com

CONNECTICUT -

Bob & Sandy Boyer - 203-264-7512
Email: bobandsandy140@charter.net

DELAWARE -

Hugh Horning 302-655-6191 - 410-228-7521
Email: yeepee121@aol.com

EUROPEAN -

FRANCE - Jean Luc Kaiser
(33) 3 87-50 70 57
Email: jlk@leuropevueduciel.com
UK - John Stainer
Email: john@stainair.fsnet.co.uk
NETHERLANDS - Pieter Standaard
Email: piet.standaard@wxs.nl
WEST GERMANY - Wolfgang Schuele
Email: wedees@gmx.net

FLORIDA -

Robert Ray 850-678-3133
Email: betsynbob@peoplepc.com

GEORGIA -

Charlie Wilson 770-927-6179
Email: cwilson193@aol.com
Bob Parks 770-962-6875
rparks@kcc.com

IDAHO -

David Hoffman 208-495-2307
Email: dhpd@iousa.net

ILLINOIS -

Doug Corrigan 815-633-6858
Email: DPCflyer@aol.com
Stacey Greenhill 847-541-7793
Email: sjg140@earthlink.net
Jeff Kohlert 630-513-9275
Email: kohlertjc@comcast.net

INDIANA -

Scott Spencer 317-291-4293
Email: bluecavu@aol.com

IOWA -

Vince & Denise Jackovich
563-285-7296
Email: vbjfly@aol.com

KENTUCKY -

David Lowe 270-736-9051
Email: loweaviate@earthlink.net

LOUISIANA -

Paul Crouch 504-892-1979

MARYLAND -

Fred & Sue Lagno 410-827-7896
Email: train@shore.intercom.net

MASSACHUSETTS -

Jack Manchester 508-378-3557
Email: jmanches@hotmail.com

MICHIGAN -

Don Preister 231-839-2191
Email: fun4me2fly@netonecom.net
Richard L. Acker 517-465-6229
Email: ackerd@voyager.net

MINNESOTA -

Tom & Jan Norton 651-459-1423
Email: jannorton@compuserve.com

MISSISSIPPI -

Mitch Hendrix 662-324-3330
Email: tdragger1@yahoo.com

MISSOURI -

Frank Murray 636-227-4111
Email: dee-frank@worldnet.att.net

NEBRASKA -

Ward Combs - 402-895-8601
Email: wacii@prestox.com

NEW HAMPSHIRE & AREA -

Glenn Mori 603-539-8655
Email: GMoriFly5@yahoo.com

NEW JERSEY -

Jim & Diane Morton 609-884-8723
Email: jdmort@bellatlantic.net

NEW YORK -

Howard Hilton 716-595-3454
Martin Green 607-739-1204
Email: n2319n@aol.com

NORTH CAROLINA -

Thomas Reddeck - 704-279-2110
w4vhh@juno.com

OHIO -

Terri Hull 419-375-4704
Email: bthull@bright.net

OKLAHOMA -

Marty & Sharon Lochman 405-734-2118
Email: my140@mccloudteleco.com

OREGON -

Bruce Gustafson 541-461-0574
Email: gustafsonb@lanecc.edu

PENNSYLVANIA -

Mark & Yvonne Macario 610-380-1313
Email: macario@prodigy.net
Michele Vida 724-770-0776

QUEBEC, CANADA -

Michel Charette
Email: m_charette@videotran.ca

RHODE ISLAND -

Erik Thomas 401-635-4381
Email: nc76220@aol.com

SOUTH CAROLINA -

Todd Clamp 803-321-9046
Email: tclamp11v@msn.com
Bo Mabry 843-524-5637
Email: swiftbo@islc.net

TENNESSEE -

Don Mitchell 615-223-1005
E-mail: hawk175@aol.com

TEXAS -

Leonard Richey 940-627-1883
Email: mrichy@ntws.net
Ken Dwight 281-440-7919
Email: kdwright@swbell.net
Billy Shires - West Texas 806-353-1177
Orville Winover - North Texas 903-939-3645
Email: owinover@aol.com

VIRGINIA -

Lonzo Cornett & Robin Bourne
804-966-2386
E-mail: lonzo140@excite.com

WASHINGTON -

Dave Sbur360-699-0727
sbur@hei.net

WEST VIRGINIA -

Rod Bush 304-275-3508
Email: funflite@citynet.net
Bill Motsinger 304-757-7706
Email: wmotsinger@tai-cwv.com

WINNIPEG, CANADA -

Jack Foster 204-256-0754

WISCONSIN -

Matt & Carole Rybarczyk 414-767-0920
Email: crybarck@wi.net

DIRECTOR OF MAINTENANCE DAVID LOWE

Phone: 270-736-9051 - FAX 270-736-9051
Email: loweaviate@earthlink.net

TECHNICAL ADVISOR - VICTOR GRAHN

17465 Woodland Lane, Nunica, MI 49448
Phone: 616-846-9363
Email: zenyamaero@netzero.com

Fighting Over the Left Seat

As Mac & Donna fold up their seats, Ken & Lorraine will fold them back down again. Yes, the baton has been passed. Our biggest concern in the transition at this relatively tranquil time is being able to fill their shoes, (no Mac, I'm not saying you have big feet!). If Lorraine and I can accomplish ½ of what Mac & Donna have in the next two years, we will call it successful.

On the way home from the convention, we talked about how we could transition from 'The Left and Right Seats' articles. With much discussion, argument and compromise, we thought we'd call our newsletter column "Fighting over the Left Seat", (more truth than you know!)

Our aim is to continue the exemplary leadership in getting information to current, future and even past members, thereby giving value to the members for their membership. I believe that the future of this club is the youth interested in "old planes" and our ability to support that interest is key.

I will continue to plead Lorraine's mantra about getting involved. If you see a 120/140 sitting on the ramp somewhere, ask if they are and or want to be a member of one of the finest airplane organizations around!

Thanks you for the trust and support. A special thank you to the Board, without whom we'd be a dry wet compass.

One more housekeeping point. Both of us fly for major international bankrupt airlines (different ones). So be patient with emails, phone calls, etc. We may be "out of town", but we promise to acknowledge any correspondence as soon as possible. It may take a day or so. Especially since I (Ken) don't know how the Oscar November (ON) switch works on a computer. I scribble aimlessly on a yellow legal pad and Lorraine translates to English and computer for the world to read.

Low & Slow, Ken Morris

EDITOR'S NOTES

1. Well, I had planned on doing a long drawn out section on the maintenance forum, and the Propeller Man, but Dorchen's High Notes does it so well, I am just going to add pictures to her column. **THANKS DORCHEN!!!**

2. We had a super speaker from Worldwide Aircraft Recovery. They are the people to call when you want your SR-71 moved. (If you need their number, call me. I have their business card!)

3. The Business Meeting notes are still being typed up, so they will be published in the Feb/March 2006 issue. I will recap the New Club Officers here in case you were wondering.

President - Ken & Lorraine Morris
Merchandise Coordinator - Denise Jackovich
State Rep Coordinator - Tina Visco
Member at Large - Jack Hooker.

4. The 2006 Convention will be in Faribault, Minnesota. It is being hosted by **Bill & Carol Rhoades**. It is scheduled for Sept 27 - Oct. 1, 2006.

5. Saturday Morning we traditionally have a First Timers Breakfast. At this event, the First Time Convention Attendees get to meet and chat with the State Representatives as well as the Club Officers. This convention brought a record number of First Timers! (At least in my memory!) We had at least 23 First Time Convention Attendees! What a crowd. Several had to leave before the picture was taken, so don't count!

6. Are you getting ready for winter? Are you putting your airplane away and getting ready to hibernate? If you get bored, here is a cool website that has a list of Aviation related movies and a brief recap. Check it out!
<http://www.aerofiles.com/film-a.html>

First Time Convention Attendees



High Notes*

by **Dorchen Forman**

1. The Convention was wonderful with young, **old**, and new friends and Cessna 120/140s everywhere. Ken Liggett is 87 and flew in from Colorado. Omygosh! Some people are hitting 90 and still flying. The convention was held at the North Omaha field where there was lots of room to fly north of the Big City. We ate every few hours as our energetic hosts **Judy** and **Ward Combs** provided feast after feast. The wonderful State park where we ate en route to the SR-71 museum was spectacular with vistas out over the prairie.

One of the high notes was the news that **David Eby** and **Del Dammann** got their medicals back. You can see the glow on the faces of those who are back in the air. That includes me!

The Forum, ah, the Forum, had us all taking notes when we saw examples of the cracks under the door post where the struts meet the fuselage. **David Lowe** made a plate out of 4130 steel that fits right there. Does that take an STC? The aileron hinges are showing up with cracks. If you have wheel extensions the plane gets torqued. Omygosh!

If you add shoulder harness to a plane built before 1978 it's just a logbook entry. **Jack Hooker** harness guy and David have figured out a seat belt anchor that goes to center without modifying the structure under the seat for those planes that still have the single seat belt for two.

Victor Grahn, our web maintenance volunteer, said to check couplings when you preflight the alternator and look for cracks on the gear leg where the step is bolted. He said many shops don't check the generator when they major an engine so check it's age.

The prop shop from Lincoln did a fine job of scaring me. That was a very interesting program. He said that filing the prop can make an 1/8th inch difference that causes vibration. The first 15 inches should be checked with a straight edge. He doesn't think much of a polished prop cuz it will eventually become unbalanced. Paint should be exactly as the manufacturer painted it. If you can make the prop ring that's a good sign. If it goes bonk...check it out. Remember yellow tag just means it has been serviced. If there is maintenance paperwork, you've got a good one. Check the pitting on the back of the propeller. I



Maintenance Forum



just did and it is and I'm going to have someone who knows look at it. Lastly, use only the bolts that come with that prop manufacturer. Other bolts will not work very long. And don't tighten them so much that they bore a hole into the nose.

Talk about all the volunteers that give back to an organization: **Jan** and **Tom Norton** ran the bar every night. **Nicki** and **Dick Acker** arrived the weekend before to help set up registration that started Tuesday and went all the way through Saturday evening when **Orville Spradling** from Big Springs, Texas showed up in time to eat. Orville used to fly every weekend to Catalina Island with the seat belt across the lap of the four of them: Reta and their two boys. Both boys are now big-time pilots who probably have their own seat belts.

Wheel pants, Goodyear brakes and a Lycoming O-235 engine landed from Canada: Calgary, Alberta. How nice to meet **Linde** and **Don Turner**. They had planned to fly with **Herb Hough** who is sadly MIA in the rough country in British Columbia. But they didn't get the Tired-butt Trophy cuz **Stewart Bower** and his son **Byron** flew from Concord, CA as straight as string. We were awfully glad to see all these cheerful souls who realize that the journey in a 140 is as delightful as the destination.

Hugh Woodle flew to Leadville, CO so he could say he landed at the highest airport in the

United States. When he arrived the manager said that Herb was missing. Herb had landed at Leadville just two years ago. I think that's just the third 140 that has ever landed at that elevation.

Marty Lochman flew up from Oklahoma keeping an eye on **Sharon** and their children **Sarah** and **Zack** as they drove. He saw them stop at a McDonald's and he circled. That family pitched in for the whole time helping with everything at registration. Zack with a broken arm did more than most of us with two. Marty's prize-winning 140 has a ding on the prop paint and under the nose bowl. Anyone who washes a plane every two hours would notice things like that. (**Matt Rybarczyk** and **Doug Corrigan** are among the obsessives). Well, Marty saw what happened: he was circling down to pattern altitude at his airfield when an arrow hit his prop! When he landed he chased the kid down.

It's time to find the A&P and ask him to check my 140 for all the things mentioned at the forum. The convention was fun and the forum was essential. Keep your beautiful birds safe and flying.

Us Westerners are going to band together and land at Wichita en route to the Faribault Convention next year: the 60th anniversary for the Cessna 120/140s.

Aside: Hey, Tom T., that band was called the 'Taildraggers with Brass'.

Saturday Night Banquet

If you missed the Banquet on Saturday night at the Convention, you really missed something! Not only was the food fantastic, (thanks again WARD!), but the speaker was phenomenal also!

The Banquet started out with Chicken Cordon Bleu on the menu with assorted side dishes. Convention Host Ward Combs drew names for some cool attendance prizes then the Awards were handed out. (See side bar for award winners). The Glenn Usher award was presented to longtime Association Member Jack Hooker. Donna did a wonderful job, as usual, with suspense and keeping the members guessing as to who the recipient was. After that, Ward handed out MORE attendance prizes!

Our Speaker for the evening was Col. Harlon Hain, who had a slide show and talk on the SR-71. Mr. Hain has over 50 years of flying experience ranging from the L5 to a Boeing 747, and from a Helicopter to the SR-71. After his talk he answered questions from the members.

The Banquet wrapped up with the Hospitality Room open for... Hospitality!

Donna Forbes & Jack Hooker



Col. Hain & Convention Host Ward Combs



Award Recipients

The following awards were given at the Convention

Best Original 120

Matt Rybarczyk, WI, N4037N

Best Modified 120

Jack Hooker, IL, N2648N

Best Original 140

Marvin Hembree, CO, N72769

Best Modified 140

Doug Corrigan, IL, N826RA

Best Original 140A

Don Becker, KS, N9656A

Best Modified 140A

Charles & Mary Lou Corder, OH, N9438A

Peoples' Choice

Marty Lochman, OK, N773SH

Glenn Usher Award - Jack Hooker, IL

Attendance Prizes

As you know, the convention hosts work hard all year soliciting companies for donations to our convention to use as attendance gifts for our participants. The State Representatives donate a gift also. If you see one of the State Reps, or have business dealings with any of the companies who have graciously donated, please thank them for their support of our Association.

Aircraft Spruce & Specialty Co.	Lear Chemical Research Corp.
Aircraft Tool Supply	LightSpeed Aviation
Airguide Publications, Inc.	LP Aero Plastics Inc.
Airtex Products	Lyons Studio
AOPA	Oregon Aero
Desser Tire Co.	Pacific Flyer
AVEMCO Insurance Co.	Sensenich Propeller Mfg.
Aviation Labs	Skycraft Co.
Aviation Unlimited	Sporty's
Insurance Agency	Teledyne Continental
Central Cylinder Service	Motors, Inc.
Cessna Aircraft Co.	Trade-A-Plane
Concorde Battery Corp.	Univair Aircraft Corp
David Clark Company	Wicks Aircraft Supply
General Aviation News	Worldwide Aircraft
Hooker Custom Harness	Recovery
King Schools	

THANKS!



AERO CLASSIC

Vintage Tires - New USA Production

Finish off your pride and joy with a fresh set of Vintage Rubber. These newly minted tires are FAA-TSO'd and rated to 120 MPH. Not only do these tires set your vintage plane apart from the rest, but their deep 8/32nds tread depth will give you good service life.

Desser is also a direct distributor for:

GOODYEAR



SPECIALTY TIRES
OF AMERICA, INC.



1-800 AIR-TIRE
247-8473

Desser Tire & Rubber Co.
6900 Acco St. • Montebello, CA 90640
3400 Chelsea Ave. • Memphis, TN 38108
Toll Free: (800) 247-8473 Local: (323) 721-4900
FAX: (323) 721-7888 Web: www.desser.com

Cee Bailey's
aircraft plastics
"When you want the very best"

Windshields/Windows

Our windshields and windows are manufactured under our proprietary FAA/PMA approved process. Any product purchased from us is unconditionally guaranteed to be unsurpassed in quality with special reference to material formulation, manufacturing technique, optical qualities, contour, shape, fit, and resistance to aging.

Cee Shades

**Aircraft Interior
Sun Shields**

Cee Bailey's manufactures aircraft quality sun shields that give your aircraft interior and avionics maximum protection against damaging ultra-violet sun rays and heat.

Cee Bailey's Aircraft Plastics
6900 Acco St. Montebello, CA 90640
Tel. 800-788-0618 or 323-837-1497
Fax: 323-721-7888 • Web: www.ceebaileys.com

1-800 788-0618

The International Cessna 120/140 Association mourns the passing of Mike Quinlan.

Mike goes a long way back in the Association. He hosted the 1986 Convention in Pittsburg during the time he was Vice President. It had the least number of airplanes, 3 or 4 I think. The weather was so bad nobody could fly-in. Funny though, we had the usual number of people show up. People flew as far as they could, rented a car and drove the rest of the way. It was there Mike presented me with the Glenn Usher award, something I'll never forget. Mike was a passionate man and we spent many hours in the Convention hospitality rooms arguing about just about everything. The Maintenance Advisor came out of one of those discussions. For years he was the driving force behind the Club at Sun-N-Fun and organized the banquet there.

He was a good friend,
Bill Rhoades



Pictured on the left is Jessica Chmiel, granddaughter of 120/140 Member Dell Dammann at the 140 Banquet during Oshkosh Airventure this year. She is chatting with Dave Eby (Dell is in the background). Jessica soloed her grandfathers Cessna 140 on the 13th day of July 2005.

There are no pictures of the solo as it was unplanned. She was doing real well one day and so nobody had a camera. Someone realized that she was alone in the airplane and assumed that it was her solo and they ask her, on the radio, she said "yea" and there were about 10 different people congratulating her. The rest of the day she was walking about foot off the ground. Her ambition is to fly Del's Pitts S1S. Her hero is Shawn Tucker. One of her ambitions is to fly at OSH. She is currently a freshmen in collage studying for professional pilot. So far Del says he has not been able to talk her out of it.

Convention Tech Updates

by Victor Grahn

While attending this year's convention, besides being treated to some really good food and an enjoyable flight out and back, there were some noteworthy things that came up on the technical front.

First and foremost I'm happy to say that after a fair amount of time and perseverance Jack Hooker and David Lowe were able to get a FAA approved STC to install a modification for those folks still flying around with only one seat belt (yes, that's correct one lap belt for both occupants) to be replaced with the now standard two-belt system.

So, if you are one of the few people that still have an aircraft with only one lap belt and would like to change over to two belts contact David and he can fix you up with the appropriate paperwork.

The physical amount of work that needs to be done to your aircraft will be quite minimal, simply doing some measuring and riveting in of a bracket for the center point of attachment for the two lap belts to secure to.

Basically the installation and paperwork will be very straight forward. While both Jack and Dave knew that they were only working for a small total amount of aircraft out there, they still felt the effort worthwhile as I'm sure so do the recipients of their work. This is the 120/140 community helping out it's own at their very best, Thanks Jack and Dave!

On another matter for those of you who this may affect, David Lowe is continuing to work to get his "already approved" STC to limit the gross weight of our aircraft below the number required by the FAA in their Sport Pilot Rule "re-approved".

Yes I know that doesn't make any sense and I also know for those of you who have not been able to attend the recent Maintenance Forums at

Oshkosh, the Conventions etc where this was explained this may seem a little baffling so I'll try and shed some sort of light on it.

Basically when Dave saw the Sport Pilot rule coming he requested and was granted a STC to limit the gross weight of the aircraft within the Sport Pilot limits. Well at the time this was issued the FAA didn't say anything about;

1. not being able to limit an aircraft's weight below the original Type Certificate gross weight and
2. not being able to use your drivers license as a medical if you had ever had a medical denied.

This is a very short sentence covering a substantial subject. To better explain it, since the Sport Pilot rule came out the FAA made the changes that I've listed above (as number 1 and 2) and to this extent this makes the STC that Dave came out with not usable. These changes were made without any NPRM (Notice of Proposed Rule Making) comments available to the public. This and other factors allows for some leverage on Dave and (our) part to request the FAA look into this matter.

As we all age this may affect our ability to fly our aircraft. To some extent many of us have a stake in this process.

Rest assured Dave is continuing to work on this matter. Dealing with things like this are and can be a very delicate matter. One doesn't want to go off "half cocked" and say the wrong things so if you were to have any comments or feelings about this, before writing your congressman etc. you may want to contact Dave and see what he has cooking, since whatever we do needs to be above all, organized.



**Univair has Quality 120/140
Parts & Supplies!**

- Wing Struts • Cowling • Latches & Skins • Manuals
- Wheel & Brake Parts • Engine Mounts • Tail Surfaces
- Tailwheel Springs • Landing Gear Bulkheads

Univair's General Catalog is available for \$5, which will be credited with an order of \$50 or more.
Our **free** Parts Inventory Price List is also available upon request.

TOLL FREE SALES: 1-888-433-5433
2500 Himalaya Road Aurora, CO 80011-8156
Info. Phone: 303-375-8882
Fax: 800-457-7811 or 303-375-8888
e-mail: info@univair.com
web site: www.univair.com

UNIVAIR
AIRCRAFT CORPORATION

Merchandise is sold FOB Aurora, CO. Prices subject to change without notice. 9-1-05



www.cessna120-140.org

www.cessna120-140.org. The **official website** of the International Cessna 120/140 Association, www.cessna120-140.org, offers club information, Officer and State Rep contacts, membership information, a guestbook, merchandise and club calendar. The Discussion Forum is a favorite place to communicate with members. The photo album is available to show off your "baby." There are links to member sites, printable membership applications and merchandise order forms, and much more. Stop by and sign in.

From Illinois to Omaha - By Way of South Dakota

by Carolyn Pasqualino

OK, so we got a little off course while flying from Poplar Grove, Illinois to Omaha. But it was intentional. Don and Maureen Alesi first suggested the idea to fly to the Black Hills of South Dakota before the Omaha convention about a year ago. I had been to the two major cities in South Dakota, Rapid City and Sioux Falls, but that was as much of the state as I had ever seen. The Black Hills have quite a few tourist things to see and do, so it sounded like a good plan to us.

Don & Maureen left on the Thursday a week before the convention started in their Cessna 140 and made it all the way to Custer, South Dakota in one day and a bit less than eight hours of flying. Mark and I left on the following Sunday in our other, faster Wichita product and headed west. The Alesi's picked the airport in Custer, as it was the most centrally located to all the things we wanted to see and do. Mark thought they picked it because at 5600', it is the highest airport in the entire state of South Dakota. The terrain between Illinois and Custer is pretty boring until the last fifty miles. There you start seeing the Badlands area in the central part of the state and then the last fifteen miles were over tree-covered hills. They picked us up in a rental car that the airport arranges for \$50 a day. We then drove to the Holiday Inn Express in Hill City and checked in.

After unloading our luggage in the hotel room, we drove to Custer State Park, which is a very scenic, rugged park south of Hill City. The famous Needles Highway is quite an adventure to see and drive and I was happy Maureen was the designated driver. We stopped at several overlooks to take pictures of the rugged rock formations and at one of the stops, we were entertained

driver when he finally succeeded. Further down the road we got to help a driver in a large RV turn around on the highway. He was trying to get thru one of the narrow tunnels and realized it wasn't going to work. I've never seen an RV back up a narrow, winding, steep highway and was happy it wasn't me doing that maneuver!

That night we went up to Mount Rushmore to visit the famous monument and attend the night lighting ceremony. The park ranger gave a very informative talk about the area and then a short video was shown showing the construction of the monument and a history of the four presidents depicted.

The next day, we headed south from Hill City for Wind Cave National Park. Mark and I have been to Carlsbad and Mammoth Caverns and enjoyed both, so we were looking forward to another spelunking adventure. On the way to the cave, we came across a large Prairie Dog Town and several herds of Bison. We got out and took



several pictures of the Dogs, but I don't suggest leaving your car to photograph Bison. They are a bit more intimidating than your average cow.

One of our merry foursome decided he was not cut out for snooping around dark caverns and bailed out before we started down (I'm not naming names). The remaining three continued on down and enjoyed seeing the lacy box-like formations on the cavern ceiling. Wind Cave is unusual in that it does not have the typical formations of stalactites and stalagmites that are found in most caves. This is because it was not formed by running water as the other caves are, but rather from water seepage.

After leaving the cave, we continued south to Hot Springs and visited the Mammoth Site, where several dozen mammoths have been dug up and scientists believe there are up to 100 skeletons at the site. We then drove out to the remote Wild Horse Sanctuary to see the wild mustangs. We didn't see too many of them as the only way to do it is on a two-hour school bus ride, which didn't appeal to us. We then drove back up to Hill City and had an excellent steak dinner. A mutual cheap pilot friend had told me that we had to eat at the Alpine Inn on



for about ten minutes at watching a tour bus slowly drive thru the tightest rock tunnel I have ever seen. It was obviously a one-way tunnel and about a dozen cars had to pull off to the side to let the bus maneuver thru the tunnel. We got several pictures while the driver crept thru the tunnel and everyone applauded and cheered the



the main street of Hill City, as it was a fabulous place for cheap steaks. They only serve two things for dinner—the 6 oz. Filet and the 9 oz. Filet, complete with baked potato, salad and bread. Mark balked at the price, as it was \$6.95 for the small steak and \$9.95 for the large—slightly higher than his favorite meal of hot dogs.

The next day we drove out to the Badlands National Park, which is one of the most remote national parks you will ever find. Part of the route thru the park is on a dirt road with very few cars along the way. The scenery is quite incredible though, and we saw more Prairie Dogs and Bison. We left the surreal, moon-like park behind and headed for one of the country's most famous tourist traps, Wall Drug of Wall, South Dakota. On a typical summer day, they have 20,000 visitors, which is probably more than the Badlands Park sees all summer. Its defi-



Don & Maureen with "Stiff"

nately one of those places you have to see if you find yourselves driving thru South Dakota, but once is probably enough. We chowed down on Buffalo burgers there, bought a couple of tacky souvenirs and headed back towards Rapid City.

On the east side of Rapid City just outside the main gate of Ellsworth Air Force Base, is the South Dakota Aviation Museum. They have a collection of about 25 military aircraft ranging from the Cessna O-2 Skymaster to the B-1 bomber. Most aircraft are outside and the elements are getting to them, but the good thing about it is you can stick your head up in the wheel wells and crawl around the outside of the aircraft as much as you like as none of them are roped off. Did I mention Mark really liked this museum because it was FREE? After an hour here, we trooped back to the car and drove back to Hill City for dinner. We debated going back to the Alpine Inn again, but ended up at a different place for dinner.

The next morning, we left the hotel early and headed for the airport so we could stagger off the runway before the temperatures warmed up and the density altitude became obscene. Don and Maureen departed first, light on fuel as they planned on heading south to Chadron, Nebraska to fuel up at the lower elevation. We chose to takeoff downwind as the runway slope was considerably higher into the wind. They staggered to about 200 feet and turned south to avoid the tree-lined granite off the end of the runway. We didn't do a lot better in our higher-powered bird, as we were the designated Alesi baggage-haulers. We made it non-stop to Omaha, picked up a rent car and met them at the North Omaha airport for the convention.

The next day, Mark had to leave to fly back home, as he had to work on Friday. The remaining three of us visited the excellent Henry Doorly zoo at Omaha. It is one of the top zoos in the country and I understand why. The desert biodome, nocturnal exhibit and rain forest were outstanding! I think Maureen and I were most impressed with the Indian Fruit Bats, which are as big as crows. If you are bothered by bats, I strongly suggest you skip that part of the zoo, as it would definitely initiate some nightmares. I avoided the snake exhibits for that very reason.

Friday we all boarded buses for lunch at the beautiful Mahoney State Park lodge and then ventured to the Strategic Air Command next door. This is an excellent museum that houses such fascinating aircraft as the SR-71 Blackbird and my favorite, the B-36 Peacemaker. We broke up into groups of twenty-five for a docent-guided tour of the museum and made the mandatory stop at the large gift shop. If you find yourself near Omaha or Lincoln, I highly recommend visiting this museum.

That night we enjoyed an excellent steak dinner at the airport. Our convention host, Ward Combs, outdid himself with this dinner, as it was definitely a step-up from our usual airport bar-b-ques.

The weather didn't co-operate Saturday for the planned lunch fly-out to Wahoo, so we hung around the airport most of the day and visited with friends we only



see once a year. We had another good meal at the banquet that night back at the hotel and listened to a fascinating talk by a former SR-71 pilot. Don even won a terrific door prize, a Lightspeed ANR headset.

The weather Sunday was even worse, bringing low clouds and poor visibility. Several aircraft finally ventured out late including the Alesi's and myself in Doug Corrigan's award winning modified 140. Doug offered me a ride home since my husband took my airplane and abandoned me in Omaha. The visibility had improved below the clouds and we only had a couple of areas of rain showers that we had to deviate around.

After a fuel stop in Grinnell, Iowa our two Cessna's continued on to Poplar Grove and were on the ground again after a total flight time from Omaha of about 4 1/2 hours.

Thanks again to convention host Ward Combs for yet another wonderful Cessna 120/140 convention! We've got the greatest group of folks, so those of you that have never attended a convention definitely need to make plans to attend next years.

Our long-way to Omaha turned out to be a grand adventure and we're trying to decide how to get to Faribault, Minnesota for next year's convention. Maybe by way of Nova Scotia??

■ FOR SALE ■

■ **1947 Cessna 140**, 1566 TT, 148 SMOH & Millennium Cylinders, Metal wings, N2632N, SN 12890, Cleveland brakes, Spin on oil filter, New Paint, Bendix/King Radio KY97A, Bendix/King Transponder KT76A, intercom, ELT, Scott Tail wheel, All Logs. \$20,000.00, 940-482-3411, Cell 940-368-0140.

ORIGINAL STYLE DOOR SEAL

I had a run of the original style of Cessna 120/140 cabin door seal manufactured.
COST: \$25.00 per aircraft (20 feet) also fits 190/195 or \$1.25 a foot includes shipping.

For a sample send \$1.00

BILL RHOADES

Box 51, Northfield, MN 55057
Email: pilot140@aol.com

FINEST AIRCRAFT DOOR CATCH MADE

Sky Catch



**C-120, 140
TRI-PACER
Give Make
& Model**

*Dealer Inquires Invited. 100% Guaranteed
Price \$20.25 Each or \$39.95 a pair postpaid
Make check payable to*

ROMILLY W. TRAVES

Dept. 1, 5555 Columbia Rd., Medina, OH 44256 - 330-723-2778

Adjustable Tension
Simple Installation
Rustproof Chrome
Lifetime Quality
Streamline





STC'd for C-120/
140s

JACK HOOKER

Phone: 815-233-5478
Fax: 815-233-5479

Email: info@hookerharness.com
www.hookerharness.com

324 E. Stephenson St. - Freeport, IL 61032

Bolts & Screws

Oh man, I had NO idea there were so many types of bolts.

Various types of fastening devices allow quick dismantling or replacement of aircraft parts that must be taken apart and put back together at frequent intervals. Riveting or welding these parts each time they are serviced would soon weaken or ruin the joint. Furthermore, some joints require greater tensile strength and stiffness than rivets can provide. Bolts and screws are two types of fastening devices which give the required security of attachment and rigidity. Generally, bolts are used where great strength is required, and screws are used where strength is not the deciding factor.

Bolts and screws are similar in many ways. They are both used for fastening or holding, and each has a head on one end and screw threads on the other. Regardless of these similarities, there are several distinct differences

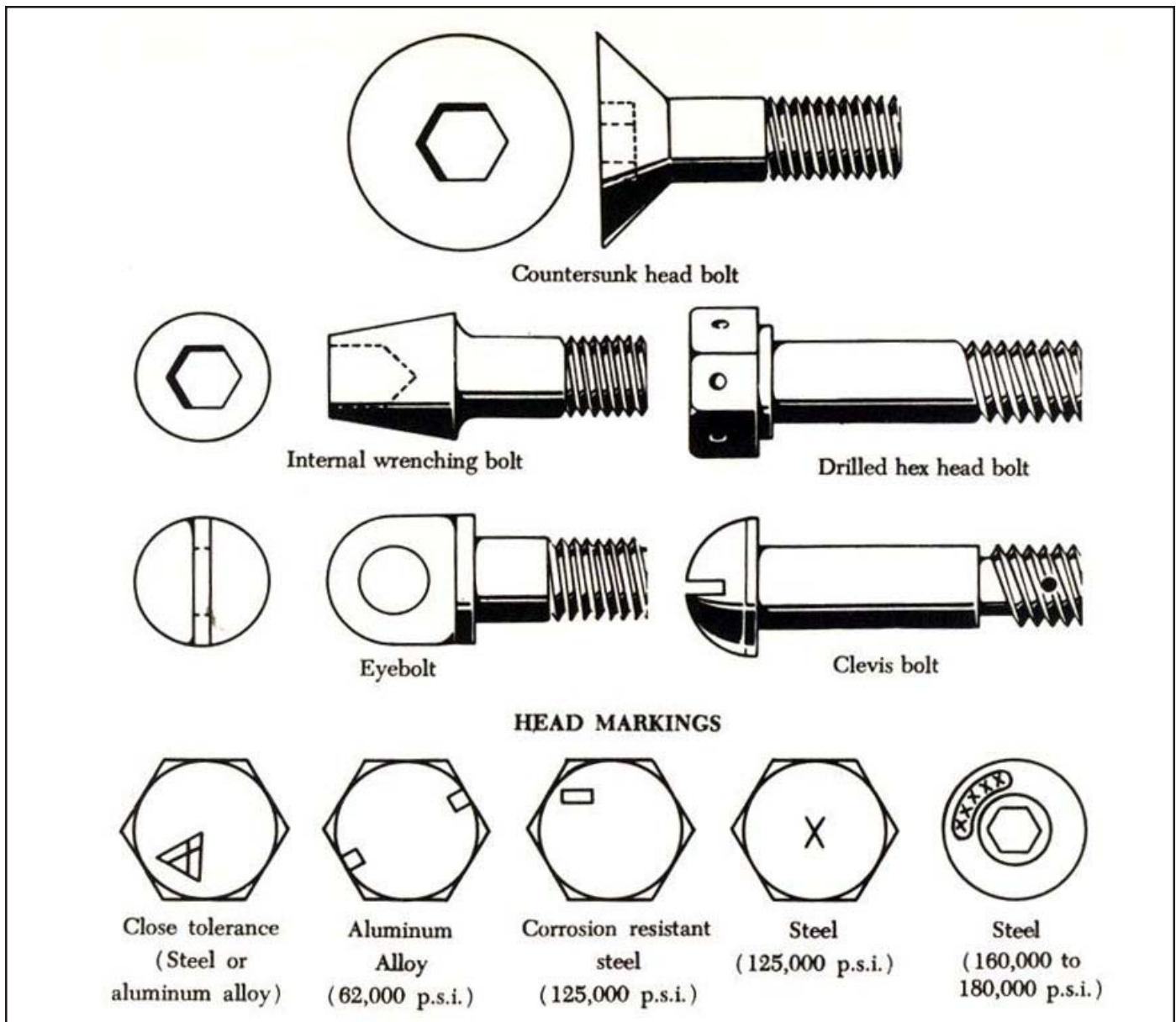
between the two types of fasteners. The threaded end of a bolt is always blunt while that of a screw may be either blunt or pointed.

The threaded end of a bolt usually has a nut screwed onto it to complete the assembly. The threaded end of a screw may fit into a female receptacle, or it may fit directly into the material being secured. A bolt assembly is generally tightened by turning the nut on the bolt; the head of the bolt may or may not be designed for turning. A screw is always tightened by turning its head.

When it becomes necessary to replace aircraft fasteners, a duplicate of the original fastener should be used if at all possible. If duplicate fasteners are not available, extreme care and caution must be used in selecting substitutes.

Classification of Threads

Aircraft bolts, screws, and nuts are threaded in either the NC (American National Coarse) thread series, the NF



(American National Fine) thread series, UNC (American Standard Unified Coarse) thread series, or the UNF (American Standard Unified Fine) thread series. There is one difference between the American National and the American Standard Unified series that should be pointed out. In the 1-inch-diameter size, the NF thread specified 14 threads per inch (1-14NF), while the UNF thread specified 12 threads per inch (1-12UNF). Both type threads are designated by the number of times the incline (threads) rotates around a 1-inch length of a given diameter bolt or screw.

Threads are also designated by Class of fit. The Class of a thread indicates the tolerance allowed in manufacturing. Class 1 is a loose fit, Class 2 is a free fit, Class 3 is a medium fit, and Class 4 is a close fit. Aircraft BOLTS are almost always manufactured in the Class 3, medium fit. A Class 4 fit requires a wrench to turn the nut into a bolt, whereas a Class 1 fit can easily be turned with the fingers. Generally, aircraft SCREWS are manufactured with a Class 2 thread fit for ease of assembly.

Bolts and screws are also produced with right-hand and left-hand threads. A right-hand thread tightens when turned clockwise; a left-hand thread tightens when turned counter clock wise.

Aircraft Bolts

Aircraft bolts are fabricated from cadmium- or zinc-plated corrosion-resistant steel, unplated corrosion-resistant steel, and anodized aluminum alloys. Most bolts used in aircraft structures are either general-purpose, AN bolts, or MS bolts. In certain cases, aircraft manufacturers make bolts of different dimensions or greater strength than the standard types. Such bolts are made for a particular application, and it is of extreme importance to use like bolts in replacement. Special bolts are usually identified by the letter "S" stamped on the head.

AN bolts come in three head styles – hex-head, clevis, and eye-bolt. NAS bolts are available in hex-head, internal-wrenching, and countersunk head styles. MS bolts come in hex-head and internal-wrenching styles.

General Purpose Bolts

The hex-head aircraft bolt (AN-3 through AN-20) is an all-purpose structural bolt used for general applications involving tension or shear loads where a light-drive fit is permissible.

Alloy steel bolts smaller than No. 12-32 and aluminum alloy bolts smaller than ¼-inch diameter are not used in primary structures. Aluminum alloy bolts and nuts are not used where they will be repeatedly removed for purposes of maintenance and inspection. Aluminum alloy nuts may be used with cadmium-plated steel bolts loaded in shear on land airplanes, but are not used on seaplanes due to the increased possibility of dissimilar-metal corrosion.

The AN-73 drilled-head bolt is similar to the standard hex-bolt, but has a deeper head which is drilled to receive wire for safetying. The AN-3 and the AN-73 series bolts are interchangeable, for all practical purposes from the standpoint of tension and shear strengths.

Close-Tolerance Bolts

This type of bolt is machined more accurately than the general-purpose bolt. Close-tolerance bolts may be hex-headed (AN-173 through AN-186) or have a 100 degree countersunk head (NAS-80 through NAS-86). They are used in applications where a tight-drive fit is required (the bolt will move into position only when struck with a 12- to 14-ounce hammer).

Internal-Wrenching Bolts

These bolts, (MS-20004 through MS-20024 or NAS – 495) are fabricated from high-strength steel and are suitable for use in both tension and shear application. When they are used in steel parts, the bolt hole must be slightly countersunk to seat the large corner radius of the shank at the head. In Dural material, a special head-treated washer must be used to provide an adequate bearing surface for the head. The head of the internal-wrenching bolt is recessed to allow the insertion of an internal wrench when installing or removing the bolt. Special high-strength nuts are used on these bolts. Replace an internal-wrenching bolt with another internal-wrenching bolt. Standard AN hex-head bolts and washers cannot be substituted for them as they do not have the required strength.

Identification and Coding

Bolts are manufactured in many shapes and varieties. A clear-cut method of classification is difficult. Bolts can be identified by the shape of the head, method of securing, material used in fabrication or the expected usage.

AN-type aircraft bolts can be identified by the code markings on the bolt heads. The markings generally denote the bolt manufacturer, the material of which the bolt is made, and whether the bolt is a standard AN-type or a special-purpose bolt. AN standard steel bolts are marked with either a raised dash or asterisk; corrosion-resistant steel is indicated by a single raised dash; and AN aluminum alloy bolts are marked with two raised dashes. Additional information, such as bolt diameter, bolt length, and grip length may be obtained from the bolt part number.

For example, in the bolt part number AN3DD5A, the "AN" designates that it is an Air Force-navy Standard bolt, the "3" indicates the diameter in sixteenths of an inch (3/16), the "DD" indicates the material is 2024 aluminum alloy. The letter "C" in place of the "DD" would indicate corrosion-resistant steel, and the absence of the letters

would indicate cadmium-plated steel. The "5" indicates the length in eighths of an inch (5/8), and the "A" indicates that the shank is undrilled. If the letter "h" preceded the "5" in addition to the "A" following it, the head would be drilled for safetying.

Close-tolerance NAS bolts are marked with either a raised or recessed triangle. The material markings for NAS bolts are the same as for AN bolts, except that they may be either raised or recessed. Bolts inspected magnetically (Magna-flux) or by fluorescent means (Zyglo) are identified by means of colored lacquer, or a head marking of a distinctive type.

Special Purpose Bolts

Bolts designed for a particular application or use are classified as special purpose bolts.

Clevis Bolts

The head of a clevis bolt is round and is either slotted to receive a common screwdriver or recessed to receive a cross spout screwdriver. This type of bolt is used only where shear loads occur and never in tension. It is often inserted as a mechanical pin in a control system.

Eyebolt

This type of special-purpose is used where external tension loads are to be applied. The eye is designed for the attachment of such devices as the fork of a turnbuckle, a clevis, or a cable shackle. The threaded end may or may not be drilled for safetying.

Jo-Bolt

A Jo-bolt is a trade name for an internally threaded three-piece rivet. The Jo-bolt consists of three parts - a threaded steel alloy bolt, a threaded steel nut, and an expandable stainless steel sleeve. The parts are factory preassembled. As the Jo-bolt is installed, the bolt is turned while the nut is held. This causes the sleeve to expand over the end of the nut, forming the blind head and clamping against the work. When driving is complete, a portion of the bolt breaks off. The high-shear and tensile strength of the Jo-bolt makes it suitable for use in cases of high stresses where some of other blind fasteners would not be practical. Jo-bolts are often a part of the permanent structure of late-model aircraft. They are used in areas which are not often subjected to replacement or servicing. (Because it is a three part fastener, it should not be used where any part, in becoming loose, could be drawn into the engine air intake.) Other advantages of using Jo-bolts are their excellent resistance to vibration, weight saving, and fast installation by one person. They are available in three head styles which are: F(flush), P(hex-head), and FA (flush millable).

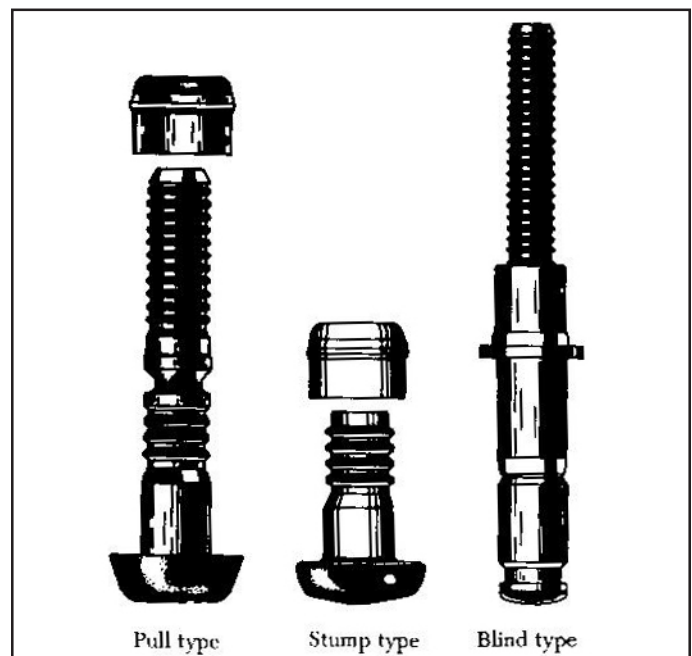
Lockbolts

The lockbolt combines the features of a high-strength bolt and rivet, but it has advantages over both. The lockbolt is generally used in wing-splice fittings, landing-gear fittings, fuel-cell fittings, longerons, beams, skin-splice plates, and other major structural attachments. It is more easily and quickly installed than the conventional rivet or bolt and eliminates the use of lockwashers, cotter pins, and special nuts. Like the rivet, the lockbolt requires a pneumatic hammer or "pull gun" for installation; when installed, it is rigidly and permanently locked in place. Three types of lockbolts are commonly used, the pull type, the stump type, and the blind type.

Pull type. Pull-type lockbolts are used mainly in aircraft primary and secondary structures. They are installed very rapidly and have approximately one-half the weight of equivalent AN steel bolts and nuts. A special pneumatic "pull gun" is required to install this type of lockbolt. Installation can be accomplished by one person since bucking is not required.

Stump type. Stump-type lockbolts, although they do not have the extended stem with pull grooves, are companion fasteners to pull-type lockbolts. They are used primarily where clearance will not permit installation of the pull-type lock-bolt. A standard pneumatic riveting hammer (with a hammer set attached for swaging the collar into the pin-locking grooves) and a bucking bar are the tools necessary for the installation of stump-type lockbolts.

Blind type. Blind type lockbolts come as complete units or assemblies. They have exceptional strength and sheet pull-together characteristics. Blind lockbolts are used where only one side of the work is accessible and, generally, where it is difficult to drive a conventional rivet. This type of lockbolt is installed in the same manner as the pull-type



Common features. Common features of the three types of lockbolts are the annular locking grooves on the pin and the locking collar which is swaged into the pin's lock grooves to lock the pin in tension. The pins of the pull- and blind-type lockbolts are extended for pull installation. The extension is provided with pulling grooves and tension breakoff groove.

Composition. The pins of pull- and stump-type lockbolts are made of heat-treated alloy steel or high-strength aluminum alloy. Companion collars are made of aluminum alloy or mild steel. The blind lockbolt consists of a heat-treated alloy steel pin, blind sleeve and filler sleeve, mild steel collar, and carbon steel washer.

Substitution. Alloy steel lockbolts may be used to replace steel hi-shear rivets, solid steel rivets, or AN bolts of the same diameter and head type. Aluminum alloy lockbolts may be used to replace solid aluminum alloy rivets of the same diameter and head type. Steel and aluminum alloy lockbolts may also be used to replace steel and 2024T aluminum alloy bolts, respectively, of the same diameter. Blind lockbolts may be used to replace solid aluminum alloy rivets, stainless steel rivets, or all blind rivets of the same diameter.

Bolt Size

In order to determine the right bolt size for your particular project, you have to think about the size of the threads. Too large a thread size will cause fasteners to loosen and come apart. Too small a thread size will not be able to handle the stress being applied to the fastener.

Bolt Size: Follow the Thread

A thread is basically a continuous protruding or receding helical ridge formed along the length of a cylinder. This ridge is referred to as the crest. The space between each of the crests, or ridge components of a fastener is the root. The crest and ridge of a bolt are set at an angle, which is known as the helix angle.

Bolt sizes vary to accommodate differing major diameters. The major diameter is measured by taking into account the outer diameter of the tops of the thread crests on a bolt. These measurements are expressed in millimeters, and are usually rounded off to the next highest whole number. For example, A 3.98mm bolt will be referred to as a 4mm bolt. To make things simpler, bolt sizes are broken down into the letter "M," followed by a number. An M5 bolt for example, is simply a bolt with a five millimeter major diameter.

Flange Bolts

Flange bolts are identifiable by the ridge or skirt surrounding the bolt head. This skirt acts as a means of distributing the clamping load of the bolt across the fastening surface. A flange bolt is designed to provide the same holding power as a washer. When it comes to

choosing the right type of flange bolt for your particular project, there are a few issues to be aware of.

Flange Bolts: Material Strength Issues

When it comes to flange bolts, or bolts of any kind, you have to remember that the plating of the bolt will play a large role in determining the maximum temperature it can withstand. This not only applies to conditions where extreme heat is present, but extreme cold as well. Engine conditions and extreme weather are areas where bolt plating has to be taken into account. Don't run into problems by choosing the wrong types of bolts.

In colder conditions, carbon and alloy steel become brittle at temperatures below 65°F. Hydrogen embrittlement can. Any threaded fasteners, like hex nuts, operate on a. Any also be a problem. The bolt won't have any visible defects, but will be weakened due to temperature stress. A cadmium plated bolt is the best. The military uses cadmium plating in its fasteners and they can be somewhat costly. Zinc chromate is a less expensive alternative. Anodized aluminum and stainless steel will also resist corrosion, but only if you know you are buying from a reputable dealer.

Grade 8 Bolts

Grade 8 bolts are considered some of the most durable and reliable one can find. They are comprised of carbon alloy steel, thus giving them a high ksi rating. Zinc or cadmium plated grade 8 bolts are available to resist corrosion. We have these, and any other types of bolts you need here at NutsandBolts.com. Our easy to navigate website makes shopping for the right fasteners simple.

Grade 8 Bolts: Strength and Durability

The factor that makes a grade 8 bolt different from a lower grade bolt is its preload strength. Higher grade materials, such as carbon alloy steel, allow for greater torque strength in the threads of the bolt. The preload, or thread tension in a fastener is higher when the type of steel being used is grade 8 in quality.

The most useful areas for grade 8 bolts are for military, aerospace, or marine related mechanical applications where high stress and strong load bearing pressures are a major factor. The off road vehicle market also has a need for grade 8 bolts for the same reasons. One thing to keep in mind is that it's almost always a safe bet to go with the highest grade of bolt you can when in doubt. Manufacturers may recommend a grade 5 or grade 6, but it never hurts to go with higher quality materials. The worst that can happen is that you paid a little more for the peace of mind.

We at NutsandBolts.com carry a wide variety of fasteners, grade 8 or otherwise, to cater to a wide variety of needs. It's easy to be intimidated by the sheer volume of products we offer. (Over 15,000 to be exact.) That's why we've made our

website so easy to navigate, and why we provide a very detailed glossary and directory to help you sift through it all. Browse our site and see why we're the best, most experienced online fastener retailer in the business.

Hex Nuts

Hex nuts are pretty essential standards among fasteners. These six sided nuts come in a wide variety of types and materials that are readily available here at NutsandBolts.com. Browsing our easy to navigate directory will give you a sense of what hex nuts we have available and what your individual needs are.

The Science of Hex Nuts

Any threaded fasteners, like hex nuts, operate on a simple principle called torque. As the nut is tightened to the bolt, the threads flex and stretch, allowing the parts being fastened to hold together. This flexing action is what we refer to as the preload, or tension of a nut or bolt. The amount of holding power, or Newton force, is determined by the preload of the fastener.

Torque is simply the amount of force being applied when tightening a hex nut to a bolt. Too much torque will deform threads, causing fasteners to loosen and break. Larger threads, like M8, M12, or M14 are better for holding together components that will be handling more stress. Weight, pressure, and vibration are all important factors to consider when choosing the right sized threads in a fastener.

Now that you know what to look out for, you also need to know what to look for. That's where we here at NutsandBolts.com come in. If you have any questions whatsoever, we have a great customer service department that is friendly and knowledgeable. We have been in the business for over 20 years, so we know our stuff. Let us be your source for hex nuts and any other fastening needs you may have.

Machine Screws

Machine screws come in a pretty wide variety of types and sizes. You need an online dealer who understands this and who carries what you'll need. We at NutsandBolts.com have been in the business for over 20 years. Chances are, we have what you are looking for.

Machine Screws: A Vast Selection

We all know the trouble one can get into when trying to sort out the type of machine screws one needs. Do you need a pan head Phillips stainless steel? How about a round head slotted brass screw? How do you know you are getting exactly what you need?

We here at NutsandBolts.com understand. We provide photographs of each of the machine screws we sell right along with detailed descriptions. This way, you know you are getting the right type of screw. You can even hold one right up to the screen to see if it matches the one you need. No one expects you to be a walking machine screw encyclopedia.

There are so many applications for these screws that there are also a great many variations in size, length, and width. Finding the right sized machine screw can be a bit of a chore. Luckily, there are machine screw size standards, and NutsandBolts.com carries the ones you need. If you can't find it at your local hardware store, you can find it with us.

Calendar Pictures

We still need some, so send or email them to:
Joy Warren, publisher
International Cessna 120/140 Assn.
1009 Porter Rd.
White Lake, MI 48383

Phone: 248-698-3431
Email: jaw133jw@aol.com

DON'T LET THAT COWL FLAP!

Replace those troublesome, complex Cowl latches with reliable Camloc® Fasteners. No cowl butchery required. A full set of four latches for less than the price of one original latch.

\$189.00 per set postpaid

With Phillips head fasteners.

Add \$5.00 for "wing" type
(no tools required to operate)

FAA STC & PMA

W.D. "Dip" Davis

411 Pawnee Trail, Marengo, IL 60152
(815) 568-6811

AIRCRAFT SPRUCE

Everything For Airplanes!



- Cessna Parts
- Engine Parts
- Hardware
- Avionics
- Pilot Supplies
- Wheel/Tires
- Batteries
- Controls
- Instruments
- Tools

Shop On-line!
www.aircraftspruce.com

Aircraft Spruce West
225 Airport Cir., Corona, CA 92880
ph: 951-372-9555 • fax: 951-372-0555

Aircraft Spruce East
452 Dividend Dr., Peachtree City, GA 30269
ph: 770-487-2310

877-4-SPRUCE
7 7 7 8 2 3

Buses, Buses and More Buses

by Eldon Larson

(It is really amazing what our members will go through to get to the Convention! It is a regular planes, trains and Automobiles story. Eldon has gone above and beyond (although not very fast) to be involved. I will never complain about a 10 knot headwind again! - Ken Morris)

On Monday, September 19, at 10:20 am I was scheduled to leave Everett, Washington to attend the 2005 Convention in Omaha. That bus broke down in Olympia, Washington, on the way to pick me up. The substitute bus showed up and left Everett at 12:05 pm, only 1:45 minutes late. The new bus arrived in Spokane, WA, after my connecting bus left. I had to spend the night at the Econo Lodge.

I left Spokane on the 20th at 6:15 am and arrived in Billings, MT. Again, the bus was late and I missed my connection. After approximately four hours in Billings, I left at 12:15 am bound for Wyoming. The bus broke about 25 miles out of Billings at about 1:00 am.

The replacement bus picked us up at 3:30 am, causing me to miss my next connection in Gillette, WY. The bus company drove us in two vans to get us to Rapid City, SD. They held up the bus there for about two hours waiting for us. By the time I got on this bus, and made it to Sioux Falls, SD, I missed my connection there! One more night in the Motel. The Days Inn this time.

The next morning I left for Omaha, getting there in the evening. I missed the first day of the Convention. I got there just in time to get on a bus and go to the SAC museum!



Another BUS!

Computer Corner robotics allowed

Here are the questions for this months issue.

Be sure to check out the Feb/Mar 2006 newsletter for the answers. By now you have the 'Whiz Wheel' figured out for airplane related problems. Did you know that you can do multiplication and division with it? Here are a few of those!

1. Climbing at 450 feet per minute for 8 minutes, how much altitude would be gained?
2. An aircraft has to lose 8,000 feet in 19 minutes. What is the rate of descent that is needed?

Answers for the questions from the last issue:

1. Off Course Problem. You are 110 stat. miles from your departure point. You are 13 stat. miles left of your intended course. At your current off course position, you are 200 stat. miles from your destination.
 - a. How many degrees should the aircraft be turned to parallel the intended course? **7 degrees**
 - b. How many total degrees should the aircraft be turned to converge on the destination? **11 degrees**
 - c. Which direction should the aircraft be turned (right or left)? **Right.**
2. Time to Station. *(I am sure this is very important to everybody with a GPS!)* You turn perpendicular to the VOR radials involved and find that it takes 2 minutes and 30 seconds to accomplish five degrees of bearing change. How far are you from the VOR station? **30 minutes to the station.**

How did you do? Here are the members who got the answers right! Congratulations George Bryant!

Application for Membership
International Cessna 120/140 Association
P.O. Box 830092 • Richardson, TX 75083-0092

DATE _____

Your Name _____ Phone No. (____) _____

Street or Box No. _____ E-Mail: _____

City _____ State _____ ZIP _____

I am a Future Owner _____ Past Owner _____ Present Owner _____

If present owner, please give the following information:

120 _____ 140 _____ 140A _____ S/N _____ N _____ Year _____ Engine _____

Your prime interests in joining: Maintenance _____ Engine Mods _____ Parts _____ Fly-ins _____

Others (specify) _____

ANNUAL DUES - \$25.00* (U.S. Currency) - Overseas Members add \$10 for Postage (Total \$35)

*Family Membership add \$5.00

PRINTED FOR MEMBERS OF THE INTERNATIONAL CESSNA
120/140 ASSOCIATION. INFORMATION MAY BE REPRINTED
PROVIDED CREDIT IS GIVEN TO THE ASSOCIATION.

■ Active STC's ■

C-85 Carburetor STC

David Lowe - 270-736-5392

Continental O200 120/140

Gary Rice - 361-643-4330

Continental O200 - 120/140/140A

Randy Thompson - 530-357-5440

Alternator Installation

Fred Lagno - 410-827-7896

Cessna 150 Exhaust

Walt Thomas - 410-544-7670

Shoulder Harness Installation

Jack Hooker - 815-233-5478

Vortex Generators

Cub Crafters - 887-484-7865, Ext. 209

Cowl Fasteners

Dip Davis - 815-568-6811

NEWSLETTER ADVERTISING RATES

	Full Page		
1 Issue	3 Issues	7 Issues	12 Issues
\$140.00	\$135.00	\$128.00	\$125.00/issue
1/2 Page			
78.00	75.00	72.00	70.00
1/4 Page			
48.00	43.00	40.00	38.00
1/6 Page			
39.00	35.00	32.00	30.00
1/8 Page			
30.00	27.00	24.00	22.00
1/10 Page			
26.00	23.00	20.00	18.00
1/16 Page			
18.00	15.00	12.00	10.00

Above rates are for camera ready material. Additional charges for layout available upon request.

Deadline: First of each month.

Terms: Payable upon receipt of invoice. Classified Ads from members to sell parts or planes are free.

Disclaimer . . .

This newsletter is for educational and informational purposes only. Readers are reminded that Federal Air Regulations Part 91 places primary responsibility for ensuring the airworthy condition of the aircraft on the owner or operator. Any person who maintains, modifies, or otherwise changes an aircraft must do so in accordance with manufacturer's recommendations and all applicable FAA regulations.

FOR SALE

PRETTY AND VISIBLE 1947 CESSNA 140,
BRIGHT YELLOW WITH A RED STRIPE. N4239N,
SN#13710, 5250.53 TT, CONTINENTAL O-200, 1457
SMOH, JUNE ANNUAL. GOOD COMPRESSION,
ALTERNATOR, CIRCUIT BREAKERS. MACAULEY
PROP, GEAR EXTENSIONS, CLEVELAND
WHEELS AND BRAKES, NEW TIRES, SCOTT 3200
TAILWHEEL, ALL METAL, LEADING EDGE
LANDING LIGHT, STROBES, CAMLOC COWL
LATCHES, CORROSION BLOCK 2003, AUTO GAS
STC, LOWE SPORT PLANE STC: GROSS Weight
1320 OR USE AS A CERTIFICATED AIRPLANE.
(waiting approval). FUEL SELECTOR: LEFT, RIGHT
OR BOTH, HOOKER HARNESES FROM DOOR
POST, NEW AIRTEX SEATS. NEW ELT BATTERY
EXP. MAY 2006. FIRE EXTINGUISHER INSTALLED
ON BACK SHELF, MODE C TXPDR, NEWLY
CERTIFIED BENDIX-KING KX125 AND BENDIX-
KING KY97A-NAVCOM, NEW GARMIN 150XL
GPS, PANEL MOUNTED INTERCOM, Lightspeed
Headset, ALL LOGS. \$26,000. CALL **DORCHEN
FORMAN**, 805-967-6972. PANIC BUTTON
INCLUDED, Rumored Virgin Mary likeness.

**See photo in International Cessna 120/140
Association.com album**

International Cessna 120/140 Association

Box 830092, Richardson, TX 75083-0092

INTERNATIONAL CESSNA 120/140 ASSOCIATION U.S.P.S. 6602-70
Published monthly by Joy Warren, 1009 Porter Rd., White Lake, MI 48383.
Subscription rates \$25 per year included in annual membership dues.
Periodicals postage paid at Milford, MI 48381. POSTMASTER: Send address
changes to the INTERNATIONAL CESSNA 120/140 ASSN., BOX 830092,
RICHARDSON, TX 75083-0092.

PERIODICALS
U.S. POSTAGE
PAID
MILFORD MI
48381

Great Service... Great Rates!

- EAA-Vintage Aircraft
Association Approved Insurance
Program
- We write all types of general
aviation insurance for aircraft,
hangars, airports, corporate
jets, helicopters and aerial
applicators

The best is affordable.
Give AUA a call - it's FREE!

800-727-3823

*Fly with the
pros...fly with
AUA Inc.*



Carbon Fiber Wheel Pants
and Mounting Plates

Wheel Pants \$600 pr.
Mounting Plates \$200 pr.
+ Shipping & Handling

www.lahtiaerospace.com



Lahti Aerospace, Inc.
2971 Sleaford Dr.
Waterford, MI 48329
Office: 248-886-8826
Fax: 248-942-3849
Email: matt@lahtiaerospace.com



Weigh less than 2 lbs. ea. Lighter and Sturdier than original metal wheel pants.

■ COMING EVENTS ■ COMING EVENTS ■

<<< ALWAYS BRING YOUR TIEDOWNS >>>

31st Annual Convention - International Cessna 120/140 Association

FARIBAULT, MINNESOTA

September 27-October 1, 2006

Plan Ahead!

Come Join Us?

If you're ever out on a Sunday morning, listen for our Breakfast Club on 122.75 at 8 am (Chicago area). We go all over the place! See ya later. **Gary Latronica.**

FOURTH SUNDAY OF EVERY MONTH

Riverside Flabob "International" Airport (RIR)

Breakfast at the Silver Wings Cafe.

TEXAS & SOUTHERN OKLAHOMA BREAKFAST/LUNCH SCHEDULE

Most every Sunday the group from Texas and Southern Oklahoma gets together for breakfast about 8:30 at the scheduled airport. Here is their schedule:

- | | |
|--------------|---|
| 1st Sunday - | Lake Texoma |
| 2nd Sunday - | Lake Murray |
| 3rd Sunday - | Cedar Mills, at Pelican Bay,
Texas side of Lake Texoma |
| 4th Sunday - | Hicks Field (T67) |
| 5th Sunday - | Hicks Field again |

Call Leonard Richey, 940-627-1883, for more info.

