

COZY NEWSLETTER #29 April, 1990

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Cozy builders will need newsletters #4 - #29, and a current subscription to the Cozy Newsletter. The earlier issues contain most of the design changes and corrections. Other issues contain building hints, builders' letters, safety recommendations, first flight reports, and other information helpful to builders. The newsletter is our principal means of builder support and communication. We also answer telephone calls whenever we are home, and personal letters, but please enclose a stamped, self addressed envelope if you desire a reply.

SERIAL NUMBERS

When you complete your Cozy and apply to the FAA for certification, you will be asked for the serial number assigned by the designer. We assign these serial numbers to builders who purchased plans from us, upon receipt of two (2) signed copies of the license agreement, in the front of Section 1 of the plans. There are a few builders who have not signed license agreements and obtained serial numbers. We urge them to do this without delay. If you have purchased original plans (not copies) from someone else, and that page is missing, then you will need to transfer the serial number assigned to the original purchaser. There is a transfer fee of \$20.

COSY CLASSIC

Cosy Europe (new spelling) has notified us that Section I of the Cosy Classic plans is now available, and Section II will be available shortly. They are accepting orders at \$500 US for plans, newsletter, and Owners' Manual. They will require each purchaser to execute a license agreement before shipping the plans, and then assign a serial number to the plans. This will avoid the problem we experienced, where some purchased plans, but neglected to sign a license agreement, obtain a serial number, and subscribe to the newsletter.

Cosy Europe has incorporated the following design changes in the Classic:

1. The fuselage has been recontoured to provide a little more width in the front seat.
2. The canopy has been changed from blow-molded to drape-molded, to make it wider and flatter.
3. The turtleback and cowlings have been recontoured to match the canopy.
4. The standard canard will be the Roncz 1145 airfoil with redesigned hardware.
5. The standard engine will be the 150/160 hp O-320 Lycoming.
6. An electric constant speed/variable pitch prop will be offered as an option.

The Classic will be a 2 + 1 airplane with a front seat Limit of 360 lbs, same as the Cozy. We have not, as yet, had the opportunity to critique the new plans. We will be anxious to see what the Classic looks like and how it performs.

OSHKOSH 1990

A Cozy builders forum has been scheduled for Monday, July 30th, 1:00 PM, in Tent #3. We invite you all to attend. We would like to become better acquainted, have Cozy pilots & builders relate their experiences, and answer as many builder questions as possible. We hope Uli & Linda Wolter will join us, to tell us more about the Cosy Classic and what is happening internationally.

SUPPLIERS

We need to alert you that we have had to discontinue both Alpha Plastics and Great American Propellers as approved suppliers. We are adding Ted Hendrickson as an approved propeller supplier. We have evaluated one of his props and the workmanship and performance were excellent. Current approved suppliers are:

- Construction materials
 - Wicks Aircraft • 410 Pine St. • Highland, IL 62249 • (800) 221-9425
 - Aircraft Spruce • Box 424 • Fullerton, CA 92632 • (800) 824-1930
- Metal Parts
 - Brock Mfg. • 11852 Western Ave. • Stanton, CA 90680 • (714) 898-4366
- Canopy & Windows
 - Fox Light Inc. • 8300 Dayton Rd. • Fairborn, OH 45324
- Propellers
 - Ted's Props • PO Box 824 • Concrete WA 98237 • (206) 853-8947
- Cowlings, Turtleback, Main & Nose Gear
 - Feather Lite • PO Box 781 • Boonville. CA 95415 • (707) 895-2718
- Exhaust System
 - Sport Flight • 22267 Powell Rd. • Brooksville, FL 33512 • (904) 796-1874

WHAT WE HAVE BEEN DOING

We took a 2 week vacation (see Mexican Adventure) in January, finished the boat, and have had a steady stream of house guests (mostly relatives) ever since, which will continue thru April. The boat was an interesting project. It's amazing what you can build with composite construction. It is called a sailing dink, 9-1/2 ft. long and 4-1/2 ft. wide. It was built with 3/8 in. PVC foam, glassed with two layers inside and out, weighs less than 55 lbs., and has a capacity of about 1,000 lbs. It goes pretty fast with a 3hp motor, and sails well too. It seems to meet our original design objective of a car-top boat which is light and will hold 4 adults and 2 children.

MEXICAN ADVENTURE or BUENOS DIAS SENOR GRINGO

On a clear 45 deg. Saturday morning the 4 of us arrived at our gray-blue EZ hangar. A major storm front had just swept thru the day before, leaving everything fresh and new again.

Ken (Francis) and Shirley and Lynn and I pulled our 2 Cozys out, anticipating our 8 day stay with the Puffers in Puerto Vallarta, Mexico. After some shivering and checking everything twice, we powered up, headed South, and turned on the cabin heat. Here's how it went.

Total mileage from Ft. Worth to PV and return was 1704 nm. We flew 11.7 hours total, including a 35 min. local flight, that worked out to 6 hours going down (ave. gs 142Kts) and 5 hours back (ave. gs 110Kts). YESSIREE, as you can see, we got right into the swing of things with a whopping headwind. We burned 98 gal. of fuel, averaging 7.5 gph. Altitudes ranged from 6500' to 15000'.

Since I fly corporate jets internationally on a regular basis, Ken agreed I should handle the paper work and flight plans. This caused a problem at our departure from Mexico which I'll explain later.

A month before blastoff, I ordered some Mexican insurance. It's required and cheap. We got ours from MacAfee & Edwards (213) 388-9674. The permit to fly in Mexico is issued on the dates shown on your policy. I strongly recommend you make your policy longer than planned, to cover any unforeseen delays.

Leaving Texas, there were plenty of places to land if necessary, numerous roads and flat fields, but the last 100 miles to the coast was rugged--a definite problem if we would have to have landed.

My Northstar Loran gave up about 200 miles into Mexico. Ken's lasted a little longer. There were plenty of VORs, but some of them were in valleys, so you have to be high to use them. We relied on dead reckoning for about 10 percent of the trip.

We landed at PV in late afternoon. I called the tower about 20 miles out. They wanted to know where we'd come from, then cleared us to land. The tower operators spoke good English. As we taxied in and parked, two guards approached with M-16s slung over their shoulders. They didn't speak English, but wanted us to sign a parking sheet. We then went inside to close our flight plan and get our paperwork (issued by the Comandante) stamped by customs and immigration. The Flight Service people speak some English and directed us (I usually tip everyone \$5 each). We cleared customs and were on the road in about half an hour.

Taxi rates are negotiable (almost everything is), but we paid too much on our first ride because we didn't know what was reasonable.

We spent a week with Nat and Shirley at Villa del Palmar. We went deep sea fishing (Ken landed a 100 lb. sailfish and Nat a good-sized dolphin). We also went horseback riding, took some land and sea tours, and pigged out a lot on local food.

Saturday rolled around and we all jumped in our Cozys for a local flight. This involved filing a local flight plan, cranking up, and going. The coast was very hazy with no wind. There were large Condors soaring along the hills and mountains and we had to be careful to avoid a midair. We covered all the places we had been by land and sea in about 7 minutes in the Cozy. Then we headed back to the airport, made a formation landing, tied down, and went back to town.

After a week of sitting next to the ocean, our planes were sticky and crusty with salt spray. We couldn't wipe it off, it had to be washed off. The birds seemed to love Cozys also. There were washrooms and water spigots, but no containers. I suggest bringing along a 2 qt. plastic bag to carry water.

Sunday, when we were all ready to leave, we were told our insurance had expired and would have to be renewed. Something was also said about paying a fine for not stopping at Nuevo Laredo. I tried to explain we had extended the insurance by phone, but not received written confirmation before leaving, but that wouldn't do. We had to see the Comandante on Monday, at 10 AM!

Flying jets into Mexico, the only requirement is that the first landing be a port of entry, which PV is. Unbeknownst to me, the requirement is different for a "pistona" aircraft, which must land at the FIRST port of entry. For us, that would have been Nuevo Laredo. The fine for violation was \$400 US each, paid in pesos.

On Monday we called the insurance company in LA. They couldn't fax confirmation of insurance,

cause there were no fax machines in PV, so they suggested we have the Comandante call them.

Ken and I went to see the Comandante, with Lynn as our interpreter. He said the insurance matter was OK, but we would have to pay the fine. He was explicit. No amount of reasoning would change his mind. While we were in his office, Nat called the American Consulate in PV, to see if she could help. She said she had no influence with the Comandante, but would try. When she called him, he refused to talk to her.

We left the office dejected and exchanged our dollars for pesos at the local bank. When we returned to pay the fine, the Comandante told us that we didn't have to pay! The matter was all cleared up and we could leave anytime.

What had happened was that the local Consulate had called the American Embassy in Mexico City, who had called the Mexican Aviation Authority, who had called the local Comandante telling him to lay off the Americans, cancel the fines, and get us on our way. A polite way of Mexico City saying they wanted tourists.

Needless to say, that put us in a lot better mood. We had already fueled the planes and packed, so we filed our flight plans to Nuevo Laredo, paid our landing and parking fees, told Nat and Shirley to watch our formation take-off, and launched outa there!

We made up for the headwind going with a tailwind coming home. We had to go to 15,500 ft. for a smooth over the top for a one hour segment. Both Ken and I have oxygen systems on board. Because I could out-climb Ken, it took about 40 minutes to find each other. Join up isn't a problem with Loran, because they are so accurate. But without Loran, it is more difficult. We were never more than about 5 miles apart, and finally joined up about 100 miles down the road.

It was 3 hrs to Nuevo Laredo, a distance of 525 NM, for an ave. gs of 175 Kts. There, we were greeted by a dozen people wanting to know what kind of planes were these. The next question was, where did you come from? And how long did it take? Followed by, how fast are those things? That fast! WOW!

At Nuevo Laredo the people were all friendly and we cleared our paper work and fueled in 30 minutes. We then taped on our 12 in. numbers to penetrate the ADIZ, crossed the border in a 9 min. flight to Laredo to clear US Customs. You have to notify US Customs one hour before landing, and you have to file a Mexican and US flight plan before crossing the border. We air-filed our US flight plan before landing at Nuevo Laredo. Back in the air, we opened our US plan and contacted the Laredo tower. We zipped in and went straight to Customs. Our agent showed up 30 min. late, was very friendly, didn't look in any bags, asked us about our planes, where we had been, got any drugs? and sent us on our way.

We had to buy \$25 Custom stickers for our airplanes. They entitle you to Customs service during normal duty hours for one year. You can get them at any US port of entry when you cross. When coming back, you MUST stop at the first port of entry. These are usually the first airport inside the US border. If Customs isn't there when you taxi to the ramp, don't leave your plane, and keep

everyone together. They don't like you walking around before you're cleared. If you have a problem, call the tower. After clearing Customs and eating, it was completely dark. We had fuel for 5 hours, the weather was good, and there was a tailwind. We pointed our noses home, climbed to silky smooth air and a star-filled night sky. Reflecting on thoughts of the past week, there was very little radio talk. We could see for 100 miles. 43CZ has 450 TT of which about 10 are in the dark. This night would add 2 more. Single engine night flying is not my idea of a good time. Even though I've spent a bunch equipping for such flying, I usually only finish at night, never start.

I joined up with Ken at altitude, and we settled down to a gs. of 195 Kts. A nice feeling, going home. After our last tape, I tuned in Ft. Worth ATIS, called in our flight of two, and configured for landing. As we opened the hangar doors, we congratulated ourselves on how well our Cozys had run. I used a qt of oil and all systems had worked fine.

Ken has decided he won't go back to Mexico, but Lynn and I will. There are more hassles at the border but no more than other countries and islands I fly to, Canada excepted. You must work harder at paperwork outside the US. Uli & Linda could write a book on this. Most pilots don't realize how good they've got in the good ol' US. All in all, most Mexicans were glad to see us and wanted us to have a good time. If you have any questions, feel free to call. Vance Atkinson, (817) 354-8064.

FIRST FLIGHT REPORTS

1. Jerry Lynch, Apple Valley MN, N32HL, 7/20/89.
2. Rune Rostrup, Sola Norway, LN-USA, 12/2/89.
3. John Ashe, Durham NC, N267CZ, 12/29/89.
4. Greg Fowler, Raleigh NC, N86GL, 2/18/90.

We first heard from Jerry Lynch when he stopped by our house on vacation in January to renew his newsletter. He told us he had already logged 40 hours on N32HL with no problems.

1/2/90

Dear Nat,

I flew LN-USA Dec. 2, 1989. It was only for 25 min. Everything was right; the CHTs and oil temp. were OK but I didn't have any cabin heat. Take-off was 70-75 Kts. I went up to 4000' with CHTs on all 4 cylinders under 400 deg. I let the airplane level off and did some turns. To my surprise, I couldn't find anything to complain about. When I was cold enough, it was time to try a landing. I had informed the tower that it was my first flight. I set up for a very long final and it was like landing a train. I almost did nothing. Just let the Cozy fly. I have 8 landings now and it is the same pleasure every time. I would like to fly more, but due to a lot of crosswind I have to wait. I wish to practice more in good weather. I will start on the test program when I feel I am good enough. So far, I have seen 155 Kts.

Here in Norway we have a lot of days with temperatures well below 0 deg. C on the ground. I took the fan from my wife's hairdryer and mounted it just behind the back seat. Now I have a little higher temp. inside, but it is not enough. I must find a fan that is more powerful. I also have a problem with

my right brake, which is not strong enough.

I have an O-235 C1B of 115 hp starter, and a Great American 62 x 62 prop which turns 2300 static. Will send more information later.

Regards,
Rune Rostrup

1/2/90
Dear Nat & Shirley,

Cozy N267CZ, empty wt. 972 lbs., engine O-290D. After 3 years and 8 months the moment of truth finally arrived. Would Cozy N267CZ live up to our expectations?

On Dec. 29th, after several take-offs and landings with Jack Wilhelmson's Cozy we decided I was ready to give it a try. With the first high speed taxi test the nose lifted off at 60 Kts, she felt very stable. The second high speed taxi test developed into the first flight as the nose lifted, accompanied by the main gear. As she began to climb, the engine was running rough at full throttle, producing only 2000 rpm, but still maintaining 500 fpm. So I continued to climb to pattern altitude. I adjusted the throttle and mixture, which produced 2300 rpm. Having reached a safe altitude and with the engine purring, I relaxed and for the first time enjoyed the fruits of my labor. The aircraft performed beautifully. She was very stable, in fact she could have flown hands off. One circle around the airport produced 120 Kts. I lined up with the runway for a straight in approach at 85 Kts. She handled great right down to flare and a perfect landing and stable roll out. Cozy N267CZ had indeed lived up to our every expectation and more.

Thank you Nat for the excellent plans and builder support, always ready to help with any questions or problems. And a special thanks to Jack and Donna Wilhelmson and Cozy N711CZ. Jack patiently assisted with technical questions and they both were a constant source of encouragement and the flight time in their Cozy was invaluable. My wife Carol and I are looking forward to many enjoyable hours in our Cozy.

Sincerely,
John Ashe

2/18/90
Dear Nat & Shirley,

Here are a few words for the newsletter. Cozy N86GL flew today for the first time. I put in two flights for a total of 0.7 hours. My flying buddies came to watch and got the flight on VCR. All went per book except for a small amount of left roll trim required. N86GL is a 925 lb. per plans Cozy. Our only deviation was an O-290 D2 135 hp Lycoming. I am using the Ellison Throttle body and the FlyTec 8 lb. starter. My prop is a 62 x 69 Great American. I went strictly by the book on preparing for my first flight concerning pilot currency, weight and balance (60 lbs ballast in nose), taxi and nose wheel liftoffs. I also drove a 400 mile round trip to get a check out in Jack Wilhelmson's O-320

N711CZ--THANKS JACK AND DONNA!! I really think pilots new to the high performance and the landing attitudes of canard aircraft can alleviate a lot of first flight butterflies by flying with another experienced Cozy (or Long EZ) pilot. Like the man says, "It is easy if you know how". We should do whatever it takes to keep our safety record intact.

The FAA was very cooperative with me and set limits of 25 hrs and 25 NM radius of the home airport. I plan to fly that off and make Lakeland--AT LAST! John Ashe in Durham and I communicated a lot and supported each other through these 3 years of building. We can now fly our Raleigh/Durham Cozys to airshows in the area together. Can't wait!

Best regards,
Greg & Linda Fowler

FAA REGULATIONS

EAA's Ben Owens has published an article in March, 1990 Sport Aviation entitled "The Rules are Tools" to clarify any misunderstanding which still might exist about how the FAA regulations apply to amateur built aircraft. He cleared this article with the FAA, so you may consider that this is the last word on the subject.

We understand that the FAA has been making ramp checks in some areas to see whether aircraft just landing are carrying all of the required documentation, including current sectional or WAC charts.

SUMMARY OF NOSE GEAR IMPROVEMENTS

By way of review, we have recommended the following nose gear improvements for the Cozy:

1. Install better bushings in NG-6 (see NL#28-2).
2. Install a Cleveland nosewheel, part #NWA-1230, available from Wicks or Spruce (see NL#28-2). Approx. \$60.
3. Check the inside faces of the nose gear fork to see if they are parallel. If not, the nosewheel may cock when the axle is tightened.
4. Make a spacer to be installed between the nosewheel bushings to hold the tapered bearings the correct distance apart, so the axle can be tightened without over tightening the bearings.
5. Install a Bob Davenport shimmy damper, available from Bob Davenport, PO Box 650581, Vero Beach, FL 32965-0581 (407) 567-1844. Approx. \$62.
6. Install a heavy-duty spring in the Brock shock strut. Cat. #9-2416-36, available from Danley Die Set, 301 So.Tanager, LA, CA 90040 (213) 685-8151. Approx. \$13.

TRANSPONDERS

With altitude encoding (mode C) transponders being required by the FAA in more and more of our airspace, it is important not just to install a system, but to make sure you get the best possible performance. We used to believe that a home-made RST antenna could be buried anywhere in the structure, as long as the radiating rod was away from any metal and the line of sight wasn't blanked

out by the engine. In fact, our King KT76A transponder in 44CZ seems to work just fine with an RST antenna suspended in the outer cavity of one strake. Several builders have reported problems to us however, and we have had plenty of problems with an Edo Aire transponder in 22CZ. We moved the RST antenna from the wing to the nose, and the transmission signal was still being pulled off frequency. So we took the chassis, antenna, and cable into our avionics shop. There we received a lecture that because of the high frequency at which a transponder operates, the impedance of the antenna system is very critical, and they were horrified that my coax cable was attached to the RST antenna with soldering lugs. They supplied me with a factory spike antenna which connects to the cable with a 50 ohm connector, told me to install it, and they would check my transmission frequency.

Builder Mike Marshall had a problem with his Terra transponder, and the factory rep told him that he could have no more than 6 ft. of co-ax between chassis and antenna.

Without understanding all the technicalities, we recommend that you install the transponder antenna in the nose of your Cozy, to keep the co-ax as short as possible, and also so you can get at it if you have to make any changes. You will need to have your transmitting frequency checked after installation, because we were told that the airframe (even composite) can attenuate the frequency.

LORAN ANTENNAS

Loran utilizes very low strength long wave radiation, and to get optimum performance, particularly in areas of poor signals and poor grid geometry, it is necessary to have a good antenna system. This is difficult, but not impossible in a plastic airplane. After extensive study and experimentation, Mike Melvill has made the following recommendations:

1. Use only the factory supplied antenna and preamp.
2. Mount the antenna on (or close to it) the fuselage centerline. On a Cozy, the preferred location would be on the fuselage bottom, underneath the back seat area.
3. For a ground plane (absolutely necessary) use copper wire cloth of 16 x 16 mesh and .011 wire diameter available from McMaster Carr, part #9224T22, phone (213) 692-5911.
4. The ground plane can be installed after construction on top of the floor in the back seat area, from the front seat back to the back seat back, and protected with one layer of BID over, or installed underneath the skin on the bottom. In either event, provision must be made for a good electrical contact between the ground plane and the antenna base. The ground plane could either be clamped between the antenna base and a back up plate, with a coating of DC4 grease to prevent corrosion, or the ground plane could be soldered to a copper back up plate bolted to the antenna base.
5. The preamp should also be attached to the ground plane in a similar manner. If not possible, it should be connected electrically to the ground plane.
6. Finally, and most importantly, a separate 18 ga. ground wire should be run from one bolt on the preamp case to one bolt on the antenna, then to a bolt on the chassis tray, and then directly to the negative post of the battery. Mike says the separate ground, bonding all elements of the system directly to the battery is the key to a successful installation.

We live in the continental gap and have not been pleased with the performance of our Northstar in

Arizona. The most obvious thing that we omitted in our installation was the separate ground wire, we will install one and see what happens.

OVERHEATING OF ENGINE ACCESSORIES (from CP 62)

During flight, there is enough cold air passing thru the cowling and turbulence to prevent magnetos or other equipment mounted on the upper firewall from overheating. However, when you stop and park after flight, stagnant air is trapped at the top of the cowling between the firewall and the accessory case. Without ventilation, this air can reach a temperature of 350 deg F or more. The Slick Magneto people have said that Slick mags will break down and probably have premature failure of the high tension coil if the temperature of the mag gets much over 300 deg F.

The ideal solution would be to have a door at the top of the cowling which opens when the airplane is parked, but closes during flight. This can easily be accomplished with a door similar to an oil door, except hinged so that it opens in rather than out. The door will open to let the hot air out when parked, but during flight the air pressure inside the cowling will hold it shut.

We had a premature mag failure on our Mark IV, and this could have been the cause. We have since installed a "flapper" valve in the top of the cowling. Thanks, Mike!

RUDDER CABLE - PLANS CLARIFICATION

A design objective was to make the Cozy control system as reliable and fool-proof as possible. The plans and newsletter specify that cable guards be installed on the rudder cable pulleys. The purpose of these cable guards is to prevent the rudder cables from coming off the pulleys, which would render the rudders inoperable. These cable guards are shown in Chap 15, p.1, fig. 2 and fig. 3, and described in Chap 6, p.7, 3rd paragraph.

In NL 22, p.2, it is suggested that if the brake cylinders are installed in the nose, pulleys may be substituted for the CS 15 belcranks on the firewall, but that cable guards must be installed. To clear up any possible misunderstanding, please study the sketch below:

Please don't omit the cable guards! They are for your safety!

ACCIDENTS

We recently received a telephone call from Cosy Europe that one of their builders wrote to them about the crash of a Cozy in Brazil (we didn't even know one was flying in Brazil), which was fatal to the pilot and passenger. The information was sketchy and not too clear because of the language used. Apparently there was no official investigation.

We were told there were 6 hrs TT on the aircraft, and on this flight the engine failed on take-off. The aircraft was said to "go vertical" and crash.

We have puzzled over the writer's choice of words. How could it pitch up after an engine failure?

Would it pitch down? Or did the pilot attempt a steep turn (vertical. bank) back to the airport? We don't know (and may never know), but it does provide the opportunity to discuss power failures on take-off.

If you have a power failure after becoming airborne, before gaining much altitude, and with the runway behind you, there are few acceptable options. In a climb attitude, it takes full power to overcome induced drag and maintain airspeed. If the power fails, you must "dump" the nose immediately and automatically to maintain flying speed and realize the best glide angle. The instinctive reaction might be to hold the nose up, out of fear; or, one might not react fast enough. In a conventional aircraft, this would precipitate a stall, and if a turn is attempted, a spin. In a Cozy, failure to dump the nose would cause a very high sink rate.

Another instinctive reaction is to attempt a steep, 180 deg. turn back to the field. This is also the wrong thing to do, because in a steep turn you will lose almost all lift. Without power in a steep turn, you must drop the nose even further to maintain flying speed. If you contact the ground with a high sink rate with wing down and nose down, your chance of survival is greatly reduced. Even if you roll out of the bank before touch-down, you would have developed a high sink rate and the touch down would be violent.

It should be part of every pilot's basic flight training that if the power fails immediately after becoming airborne, to dump the nose to maintain flying speed and land with wings level, straight ahead. Of course, avoid any major obstacle, if possible. Of course, switch tanks if there is time, to see if the engine restarts. And, of course, lower the nose gear. It will absorb some of the shock of rough terrain, help to slow you down, and help to prevent over turning.

There are precautions you can take to minimize the risk of power failure on take-off. During preflight, drain sumps and gascolator to check for water in the fuel. Make sure the selector valve is in detent on fullest tank. Immediately before take-off, check for carburetor ice with carb heat.

And after taking the runway, do not release brakes until after the engine is developing full power. And ALWAYS use the full runway.

While the probability of power failure on take-off is low, you should be mentally prepared to react instantly and correctly. If you are, your chance of walking away uninjured and with minimal damage to your aircraft is excellent.

We are saddened to have to report this accident, but we hope that these comments will benefit others.

FOR SALE

- Teflon hinge pin kits. Solves the problem of piano hinge wear. \$21. Contact Gray Hall, 851 SW 63rd Ave., North Lauderdale, FL 33068 (305) 971-9731.
- Zerostatic wax. Greatly reduces dust build up on your aircraft and canopy. Available at Wicks and Aircraft Spruce.
- Plans for flush rudder belhorns. \$10. Contact Joan Richey c/o RAF, Bldg 131 Mojave Airport,

Mojave CA 93501.

- Nose gear crank ratchet. Locks gear handle firmly in either gear up or gear down position. Adapted from a Craftsman socket drive and ready to install. \$29.95. Contact Curt Smith, 5114 Canaan Center Rd., Wooster, OH 44691 (216) 345-6571. (What a neat idea!)
- Heavy duty engine mount extrusions, 1-1/4 x 1-1/4 x 1/4. For O-320 engines. Also Brock 4 in. nosewheel w brgs, unused \$65. With tire and tube, \$85. Contact JAlan McPherson, PO Box 116, The Sea Ranch, CA 95497.
- Used Brock 4 in. nosewheel w brgs. Make offer. (602)981-6401.
- Starter ring assy 10/12 \$100; Hobbs meter 2-1/4 in. dia. \$15; United IFR altimeter \$100; Carb temp Westach \$15; Fuel pressure & sender \$30; Cleveland wheels & brakes 199-102(new) \$150; Pesco wet vacuum pump \$30; Sport Flight x2 pipe exhaust \$120. Contact Mike Marshall, 3450 Diamond, Los Alamos NM 87544 (505) 662-3607.

WANTED

Completed, finished and flying Cozy that is built well, looks good, has a good engine, and flies well-- at a reasonable price. I have always wanted a Cozy, but just don't have the time to build one. C.C. Van Arsdale, Jr. 23175 Gainford St., Woodland Hills, CA 91364 (818) 340-6661.

LETTERS

Dear Nat & Shirley,

I'm also impressed with the qualities of synthetic engine oils. I'm a turbine shop inspector for a major airline and everyday I see the results of synthetic oil. If jet engines were not using synthetics, they wouldn't last more than several hundred hours. On the average, the engines I see are torn down somewhere in the neighborhood of 7000 hrs. Rarely is it from a bearing problem. I have actually seen front compressor sections with 29,000+ hours since their last "detail part inspection." Impressive!

I've been using synthetic oil in my Honda for three years now. I started off using Castrol GTX, then Mobil 1, and then switched to Amsoil. Also I saw a friend's diesel Rabbit who was running a synthetic called "Redline," and I've never seen a cleaner engine. I'll never forget looking under that valve cover--like brand new!

One thing that Amsoil makes that I am 100% ready to testify to is their "bypass" filter. It tees into the oil press sending unit circuit and bypasses oil through a filter which filters down to 2 microns. You still keep the spin on filter because the high volume the engine needs could not go through the bypass filter. You might want to investigate the bypass filter for your car and maybe??? for your airplane.

Life in CA is such a paradox. I finally have a house with a real garage, hut I'm gone 12 hrs/day and don't have money to build an airplane, much less the time. I have a friend who is a computer genius and had a good job in Silicon Valley, but got burned out on the smog and hassle. He moved to Minneapolis and bought a HUD home for \$15,500! It needed work, but the price was right. God knows it's cold up there (and so do you), but sometimes it's tempting.

Sincerely,
Bob Greenstreet

2/5/90
Dear Nat,

In cutting foam for my wings I found that the hot wire occasionally snagged. Having just finished some stained glass work, I had a roll of gummed copper foil which I rolled on the edges of the template and prevented this. Hobby shops have this foil in different widths. It is the same as used for antennas.

Featherlite does a wonderful job! My cowlings, wheel pants, and turtleback are absolutely first rate. The turtleback is made of pre-preg honeycomb, weighs next to nothing, but is very strong.

Sincerely,
C.F. Cutcher

1/27/90
Dear Nat,

84CZ has been sailing along in good shape and is due for its second 100 hr inspection. Problems have been few, the most serious was a stuck exhaust valve. After several long trips into Mexico and having to use 130 octane fuel, we think the problem was the high lead content.

We have enjoyed the flying and feel well adapted to the EZ characteristic dutch roll. Cruise performance is very satisfying at 155 Kts, 2550 rpm, and 7 gph.

We have moved the battery aft. We limit forward cg to 98.5 to avoid excessive take-off and landing speeds.

By the way, our unique fuel gage system, where we measure the static head of fuel in the tank with a converted airspeed indicator is doing very well with no moving parts.

Sincerely,
Bill Spreuer

11/28/90
Dear Nat & Shirley,

I enjoy reading the newsletter. It's always a pick-up after a busy day, to see it arrive, sit down to savor every sentence in my easy chair. Until I sell my Long, I may not start on my Cozy, but I enjoy daydreaming of flying a Cozy with a nice big panel and side-by-side seating. We appreciate your work and support, even the "future" or non builders.

Sincerely,
Don Hansen,M.D.

PHOTO GALLERY

Greg & Linda Fowler's attractive panel

Greg & Linda Fowler's beautiful Cozy N86GL

Gringo Touristas waiting to penetrate the ADIZ zone with big 12 inch numbers.

Shirley Puffer awaiting an air tour of PV after touring by land and sea.

Charles Nunnelee just getting started.

John Ashe's attractive front seat and panel.

John Ashe's beautiful Cozy N267CZ.

A Cozy meeting of the Oelmann and Russell families.

This newsletter transcribed to HTML by [Gene Traas](#).