

# EXPRESS PRESS



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*Just throwing money at the project isn't an option for most of us.*



## FROM THE TOP

### MAKE IT OR BREAK IT By David Ullrich President, EDI

With more and more builders coming on line everyday, we at

*EXPRESS* wonder at the broad range of customers that come to buy, and put into the air one way or another, their own *EXPRESS*.

I was talking with an experienced professional builder the other day who builds mostly the high speed, retractable, four seat composite kit aircraft, (the only one currently on the market), I asked him what percentage he thought of the total kits produced were built by professional builders. He guessed 75%.

Then I asked him what he thought the average price for the professionally built labor to complete the job would be (less instrument panel/avionics installation, interior, exterior finish, etc). He guessed \$100,000.00. Next, I asked how many buyers of this aircraft kit were opting for the pressurization? He thought about 75%. How much is the pressurization option? His answer was \$35,000.00. Were some full IFR instrument panels being made for some of the buyers? Yes. How much? An average of \$50,000 (some with EFIS were being bought at \$80,000.00+).

How much does that big turbo'd engine cost? Upwards to \$45,000.00. He also mentioned some buyers are getting custom engine work done, to pull every knot of speed they can. What cost? Balancing, "blue-printing", and ceramic porting are only a few refinements that will provide longer engine life - which could cost another \$10,000.

Even if you didn't happen to have enough "pocket change" for some of those last few "extras", how many people reading this newsletter have either the resources or, if you do, have the motivation to take on a kit-plane of this magnitude? Without adding up all the numbers - and leaving out the price of the kit itself - you could afford an *EXPRESS* for every member of the family for the price of just one of those hi-priced kits!

What is my point? Many of you builders approach the production of the *EXPRESS* in a very different manner than those that opt for the competition. Just throwing money at the project isn't an option for most of us. Either is it simply ego gratification (as I have talked about before). Rather, you approach building with much more short term, practical and realistic goals in mind.

We at EDI want to sell kits, but more

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*Many of us, especially those over forty-five, feel that we know ourselves very well...But are most of us "older and wiser" people really honest with ourselves?*

importantly, we want to see *EXPRESS* airplanes in the sky. Many a builder gets discouraged during the building process and never gets to the ultimate goal of getting their aircraft flying. EDI has remedied many of those factors that have to do with the kit manufacturer itself, such as: lack of building instructions, lack of confidence in the manufacturer and/or the kit itself, lack of parts to complete the kit, etc, etc, etc. Time, personal construction abilities, likes and dislikes, and the ever-present finances are factors that can only be remedied by the builder.

Many of us, especially those over forty five, feel that we know ourselves very well - at least we should... We know whether or not we are "good with our hands", or whether or not we like the "workshop" environment, or whether or not we can "follow instructions". But are most of us "older and wiser" people really honest with ourselves? Our personal abilities and likes and dislikes effect the ultimate goal of building just as much as they effect other personal goals each of us have for our lives.

And how about time, that elusive, all-important resource none of us seems to have enough of? Do we really have the time to complete this project in the year - or two years, or whatever time we have planned?

A few years ago, I thought I could complete a Lancair 320 in one year with the part-time help of others. Was I crazy? Who was going to run my business during this time? I averaged 60-80 hours a week, sometimes more, just looking after the business.

It does seem true that many who have the

money to spend, don't have the time to spend it. Farmers and ranchers need to plant and harvest; small business owners need to be constantly managing; doctors need to be caring for patients, and all of us need to be spending "quality" time with our families. Having said that last remark I'm sure all of us would have to say we "don't have the time". But being more realistic, quality time for a lot of us unfortunately boils down to just eating and sleeping. (I know, a sad commentary).

What about the money? That's a BIG item!

When we've gotten through all the other criteria and we face the money, do we go as far as we can on what we have and wait for the budget to catch up when it can? I'm sure a lot of you are in this category, but EDI would like to see the budgetary factor take as possible.

When some of these factors get the best of us it can mean the ultimate termination of the project with a lot of hopes, dreams, and money going "down the tubes". We at EDI realize the tenacity it takes to "hang in there" and we want to be of help whenever and wherever we can. We can't offer any specific financial help, but it never hurts to talk to us. We may have some advice that could help. If you're stuck in a motivation slump, or you know you can't hack, or don't want to hack, the skills and environment it takes to personally build your aircraft - or it's taking too long without some help and the money has dried up - give us a call. DB, Mike, Jim Warner, or myself might be able to provide with you just the "boost" you need to get back on track.



## SALES STUFF

David Breuner, Director of Sales

The last week in November represented a big milestone for EDI. We shipped seven new orders to the East Coast that were taken at Oshkosh. We delivered within our promised 90 day time frame. We began a new program of making deliveries in-house to cut down on freight damage, and to cut down on crating/freight charges. We will continue to offer this option for all our builders so long as we can justify a good load for our new 34 foot trailer and truck. Obviously it would be hard to justify a trip for one drop-off in Dallas, and another in Rangely, Maine. The use of Common Carrier (Viking, CF, etc.) will continue to be an option, and of course you will always have the option/right to make your own pick-up here at the factory in Redmond, Oregon.

Since Oshkosh, we have received a great deal of interest in our two new sales programs, the "EXPRESS-build" option, and the new "bare-bones" option. These two options represent both extremes of the kit aircraft spectrum: if you want the most complete kit available with the maximum amount of work performed by the factory then the EXPRESS-build option becomes an excellent choice. (We've already built and shipped two complete EXPRESS-build kits!) Conversely, if you want to minimize your initial investment by avoiding our mark-up on common hardware, then the BARE BONES option becomes an easy "no-brainer" way to save \$7,000 off the cost of the complete kit price.

Under the bare bones program, we supply you with all of the custom proprietary parts that are necessary to complete an EXPRESS. We do not include any of the common hardware parts that can be purchased direct from discount suppliers. It costs us a lot of money to order and inventory, pick and sort the thousands of small hardware parts (nuts, bolts, screws, etc.) that come in the Complete EXPRESS kit. Our customers can avoid these overhead costs by going direct to our own supplier for these parts!

We currently have a special arrangement with ALEXANDER AERO and AIRCRAFT SPRUCE to supply all of these parts, and the entire process can be accomplished with just two phone calls. After all of the hardware parts are purchased, the NET savings off the complete kit price is at least \$3,000. The following is an individual breakdown on BARE BONES sub-kit pricing: Kit 1 Wing kit - \$11,900, Kit 2 Fuselage kit - \$12,300, Kit 3 Tail kit - \$3,750. The majority of the savings comes in the final tail kit since this kit has the majority of the big ticket items (ie. brakes, wheels, tires, etc.)

We are continuing to assemble and deliver EXPRESS BUILD wings and tails as fast as we can make them. You can purchase them individually or together. We perform 90 - 95% of the assembly work on the wings and the tail. All work is done to factory specs, and this represents approximately a 600 hour savings in building time. Now the EXPRESS can be legitimately completed in under 1500 hours! Cost for this option is an additional \$10,000 on top of the Complete kit price (\$34,965), or the BARE BONES price (\$27,950).

Since we've reduced our Oshkosh back log, we can now deliver sub-kits and complete kits in approximately 60 days. Call me for details. ✈

*Since Oshkosh, we have received a great deal of interest in the EXPRESS Build option and the new Bare Bones option*

*The  
EXPRESS  
demo aircraft  
(N540ED)  
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## TECH NOTES

### CLEVELAND BRAKES ARE A GREAT SUCCESS

Mike McDaniel  
Technical Director

I am happy to report that the Cleveland Brakes that were installed on the *EXPRESS* last summer have proven to be near perfect in operation throughout the very busy demo/airshow season. As you may recall in early 1993, we had experienced a few brake problems with the previously supplied brakes. This prompted us to convert to the double puck Cleveland Brake system. The *EXPRESS* demo aircraft (N540ED) leads a very rough life, with all kinds of pilots flying it... near the limits at times. Our Sales Pilot, David Breuner, (an Ex-Navy Pilot who also gives the brake system a very thorough workout), reports that the Cleveland Brakes never fade, even when he is giving touch and go's landings to other ex-Navy Pilots (the Navy calls it "crash-and-dash").

As it is in the flying business, you've got to keep an eye out for "Murphy's Law". Shortly after the initial installation of the Cleveland Brakes we experienced a failure of a brake hydraulic line. The hard nylon ("NSR") brake lines utilized in the *EXPRESS*, and many other kit-planes, is not suitable for brake systems used in environments with temperatures in ex-

cess of 140 deg.F. (less than 425 psi working pressure). While the "burst pressure" rating of the NSR tube is quite high, the "working pressure" is considerably less, which means that even though the line may not burst, it may leak at fitting connections. The previous brakes always seemed to leak brake fluid, and the line fittings also seeped fluid.

After installing the Cleveland Brakes, we noticed the brake line at the caliper was still seeping no matter how fresh the ferrule or the torque of the nut. We found that fresh "NSR" lines and new fittings were fine until aggressive braking allowed heat to build up inside of the wheel pants which would cause the "NSR" line to deform and the fittings would leak brake fluid. To solve the leaking problem, we moved the brake lines to automotive steel brake line tubing, and we have run it down the trailing edge of the main landing gear leg to a point just above the axle. Then we installed hi-temp disk brake braided hose and fittings to the Cleveland calipers. To date, we have not had any problems with this new brake line system. With well over 250+ hours of hard demo landings.

It appears that the combination of NSR lines from the master cylinder to the gear legs, then steel line and hi-temp disk brake hoses to the brake caliper has solved our brake hydraulic leaks. Several sources have assured me that the aircraft brake fluid is compatible with the new hoses, however, we will still monitor these items.

"Murphy" won't win this one. . .

## TECK TALK

By Mike McDaniel - Technical Director



### NEW TEMPLATES IN WORKS

When EDI took on the rebirth of the *EXPRESS* we obtained a very good set of jigs to cradle the wings, tail, and fuselage. While the existing cradle jigs have served the builders well, we at EDI are investigating the addition of "top templates" to insure extra conformity to desired airframe profiles. "Top templates" are simply wood profiles that would attach to the existing wing and tail cradles to insure symmetry of desired profiles of airfoil and certain fuselage sections. Total profile templates are utilized by a few other kit-planes with good results and we feel that this type of builder aid will enhance the *EXPRESS* also.

It's interesting to note that several builders have constructed their *EXPRESS* kits with great workmanship and hands-off performance without templates. No other composite kit-plane is supplied with factory routed ribs and bulkheads like the *EXPRESS*, so templates are not a builder aid for other kit-planes - they're required to allow the builders to cut out parts... the very same ones that *EXPRESS* supplies factory-cut!!! A few former Lancair and Glassair builders have started building *EXPRESS* kits and they rave about the fact that wing ribs and bulkheads are pre-cut, which gives them a tremendous head start and continuity of the building project. Sometimes when we are up to our elbows in our undertaking, we tend to forget just how much effort and pre-work has been done by the *EXPRESS* technical support team. ❖

## BUILDERS CORNER

By Jim Anderson - Editor

[Note: The information, drawings and design suggestions in this column are not approved (or disapproved) by EDI, but are offered only in an effort to share what other builders are doing.]

Joel Briggs, an *EXPRESS* builder from Punta Gorda, Florida, sent along a few ideas that other builders might find helpful in their *EXPRESS* projects.

To begin with, Joel has added arm rests on each side of the rear cockpit, which will be more comfortable for rear-seat passengers. He's also going to place the headset jacks under the arm rests, which will help prevent damages to wiring and jacks.

The seat-back head-rests are also another small, but helpful addition for the comfort and safety of passengers and pilot.

Joel has also added a "step flap" to the right front seat cushion which will protect the cushion as the pilot enters the left seat. When not in use, the "step flap" can be rolled up and placed between the seat and the sidewall.

Florida is a mighty warm place to live, especially in spring and summer, where the air temperature will quickly reach 92 to 94 in the shade from May to October. Anyone who's lived in such places knows what that means to the inside environment of an aircraft cabin. Joel has installed a set of accordion blinds on both rear windows that will prevent the direct rays of the sun from heating up the cockpit when the aircraft is parked on the ramp, waiting to go.

When ready for take-off the blinds are quickly rolled into the raised position, giving the passengers plenty of visibility to enjoy their flight—and to allow the pilot to "see-and-avoid".

To provide easier access to the luggage compartment, Joel has suggested placing hinges on the right rear seat-back. This allows the seat-back to fold forward and lay flat on the seat cushion. In this position the seat-back will support the full weight of an adult as gear is placed in the luggage compartment.

Joel also has other ideas: like a trim-tab (or flap) position indicator which can be converted from a fuel gauge sender assembly; wing-leveler indicators, screened vent in the lower rear fuselage bulkhead, and other thoughts...

If you'd like to talk with Joel about his ideas, drop him a line at 2913 Ryan Blvd.; Punta Gorda, FL 33950

*It's interesting to note that several builders have constructed their EXPRESS kits with great workmanship and hands-off performance without templates.*

*Send along photos, ideas, and the methods you've used to save time, money, and band-aids while you've completed your EXPRESS*



## EDITORS CORNER A New Face In The Clouds

By Jim Anderson  
Editor,  
*EXPRESS PRESS*

There's an old saying about Nature that also works within the business world: "The only thing that's constant is change". And so it is...

Last summer, Mike McDaniel, the Technical Director for EDI, was caught in a bind. He had to be in three places at once, and one of those places was the big Oshkosh EAA get-together. "I'll call Jim," he said, "he'll get me out this..."

That's something Mike and I have been doing for years, getting each other out of the traps we set for ourselves. When Mike asked if I'd drive the Express truck to the show I couldn't say no. That's when I met everyone from the EDI family, including many of the builders and prospective builders of the beautiful airplane we know as the *EXPRESS*.

After I arrived home from Oshkosh I told my wife how much fun I had at the fabulous EAA show with my two boys (who had come along), and I casually mentioned that I thought it would be fun to work with the crew at EDI. Little did I know...David, Ralph, DB, and Mike were thinking the same thing.

And here I am, airplane driver, glider instructor, bug chaser, eagle researcher editor.

EDI President, David Ullrich has been up to his neck in so many things at Express, what he didn't need was to continue to sweat over

getting out the *EXPRESS PRESS* every other month. He and I got our heads together and decided I might be able to help him out in several areas. The first is the role of writer/editor - which I enjoy.

I once contributed copy to a model airplane magazine (yes...I'm one of those radio-control freaks too). Presently, I write a column for my local newspaper, have authored a book, and write articles for a variety of nature magazines.

Now, I'll tell you what you can do for me, and the whole *EXPRESS* Family. Send along photos, ideas, and the methods you've used to save time, money, and band-aids while you're completing your *EXPRESS*. Home-builders are the best people I've ever known to come up with a new way to bake an apple pie, keep the resins flowing smoothly, and still maintain a happy home.

Send us your building tips and we'll pass them along to other builders. There's no better way to makes friends - unless you do a pot-luck together.

I hope you'll understand that the ideas, concepts, methods and procedures you send us will not necessarily become "gospel" for future *EXPRESS* kit-planes. The ideas are yours and we'll share them with all our friends. If they use them, that's OK. So, don't be bashful, send in your ideas and photos.

I'll also be helping in Customer Relations. If you have any challenges in building your *EXPRESS*, and want to discuss them with any of the staff of EDI, give me a call and I'll try to get you on the right track, or to the right person.

## EXPRESS FEATURE

### MEET THE

## EXPRESS DESIGN PEOPLE

By Jim Anderson - Editor

*(As space and time permits, we're going to profile each of the employees at EDI in the EXPRESS PRESS so you can get to know them better--and place a face with a voice the next time you call in for parts, assistance, or to just say "Hello".)*

Every-once-in-a-while, in this old helter-skelter world of ours, a really neat person comes along that makes you feel good when you say hello to them.

EXPRESS DESIGN has more than their share of those kind of people, working at making things better for themselves, EXPRESS Builders, and their fellow workers.



Clint Lundmark is a great example. Clint's job at EDI is to make sure the parts you order are where they should be, and they've been shipped the best way possible.

But that's just the beginning of Clint's duties. In addition to the role of shipping agent, Clint's also into computers--I mean Big Time! As it is with a business firm today with banks of computers to keep everything running smoothly--every once in a while there's a "glitch". Not to worry, Clint's on the job...He's made things hum smoothly again, more than

once, with his Magic Touch on electronic monsters.

I have a hunch that one factor that makes Clint the person he is, is that he enjoys going to school. How about that...Even as a youngster, school was always fun. Clint's a graduate of Bend High School (a little town just down the road from Redmond). He's taken several courses with Central Oregon Community Col-

lege since he graduated from high school, and today he's enrolled in a statistics course--where he says, "I think I'm doing, OK--I guess..."

Next semester he wants to take Literature, Business Calculus, and US History, but he says, "Ummm, I don't know, Jim; I can only afford to take two, and really, I've only got the time to take

two." But he'd rather take all three.

When Clint's not making sure the parts and shipping department at EDI run more smoothly, he's out on the slopes of Oregon's favorite skiing mountain, Mt. Bachelor, doing his thing on a snowboard. And like many young people in Oregon, he's into water sports in summer, and rides his mountain bike anywhere and anytime he can.

Now, if we could only get him to eat a better breakfast, he'd be perfect. ☛

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# Seasons Greetings



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*Return Address Correction Requested*

