



# WHEELER TECHNOLOGY INC.

## CUSTOMER NEWSLETTER



October 1991

Gig Harbor, Washington

This letter is late getting out to you for which we apologize. As WTI recovers, we've become very busy with all the necessary activities such as the Oshkosh rush and aftermath, fine-tuning N300EX, increasing and improving production, preparing for demonstration tours, arranging to exit bankruptcy, and other things, all of which seem to demand immediate attention. The phone activity has increased tremendously as builders return to work on their kits and prospective customers realize that WTI is alive and well. Good progress is being made on all fronts, so we want to bring you up to date.

### OSHKOSH

This EAA fly-in was a great success and the EXPRESS re-established its presence in the kitplane market. As many of you saw, the EXPRESS was a standout in a fast crowd. The booth was very busy, the plane flew over thirty demo flights, and fortunately, we had lots of help from volunteers. Twenty kits were sold with several new builders signing on.

N300EX flew to Oshkosh at near gross weight (2800 pounds) with Ken and three customers, Roger Snyder, Ed Bernard and Dave Pendelton aboard (790 pounds). As usual, they and others worked right past the last minute getting the plane ready to go. The upholsterer didn't finish, so only the seats were upholstered and some other things were not as we would like them, but otherwise N300 treated us well and the trip was great and uneventful. Speed was not up to snuff yet, but we really enjoyed its stability while flying "hands-off" over South Dakota and Wisconsin in the early morning still air.

At our banquet, Tom Wright, our test pilot, gave an entertaining and interesting talk on flight testing the EXPRESS versus certified aircraft. Our thanks to Jane Waters who, while in Gig Harbor with her husband Dick working on N300, made all the arrangements for the banquet, and at Oshkosh, managed all the details.

Ken Wheeler was the key speaker at the Aviation Press banquet, which resulted in offers from several writers to write the in-depth story of this past year's events. Also, we'll soon begin to see feature articles on the EXPRESS again as many editors asked to do pilot reports. In the meantime, look for the photo and mention of N300EX in *Kitplanes* magazine, November 1991, pages 13, 19, and 24.

Many thanks also to Roger Snyder and Dave Preston for being our demo-pilots at Oshkosh. Both are airline captains, Roger's a customer (and stockholder) and Dave's related to a customer. They shared flying from dawn to dusk and all the prospects came away smiling. This was Roger's first trip to Oshkosh and he says he's logging the Oshkosh flights as

combat time - now he's an experienced pilot. Dave was unruffled by all the action and volunteered for more. Thanks guys.

We also want to extend great thanks to all of the builders who helped out at Oshkosh by manning the booth and talking to prospective builders. And again, our appreciation to all of the volunteer builders who made it possible for 300EX to get to Oshkosh and thus allow WTI to achieve this critical step towards re-establishing its position in the marketplace.

Customers Rick Feheery and Larry Reigert attended our morning forum and passed out more of the same type of anti-WTI propaganda we saw at Sun 'N Fun. Their efforts to publicly tarnish WTI will ultimately fail for lack of merit, but in the meantime, whatever damage they do harms all builders/creditors, as well as the Company. We discovered their activities because several people who received their handout stopped by at the tent to report that they found it distasteful and were offended by the obvious malicious intent.

### 300EX

On this airplane we tried a NACA duct on the side of the cowl for induction air and it's working extremely well, giving about 1 1/2 inches of ram at 7500 feet. However, cruise speeds to Oshkosh were only about 160 MPH indicated. After returning home and working with the exhaust and induction systems, we increased the speed to an indicated 178 MPH at 3000 ft, (25 X 2500, 192 true), with a sea level top speed of about 205 true. CHT's were running cold though, only 300 degrees, so after revising the baffling and cooling ducting for even better efficiency, installing a cowl flap and reducing the inlet size, we now are indicating 185 mph. We're not finished either. CHT's are still cool and there are some draggy intersections and other details, so there's more speed available, we just have to work for it.

N300EX has accumulated some 150 hours and is completely equipped including upholstery. Its equipped weight is 1730 pounds, 70 more than we estimated, but it also has more avionics than we originally planned, including a moving map, ADF and an HSI, which alone add some 25 pounds.

Considering performance, it's interesting to compare N210 and N300 thus far:

- \* Identical airframes.
- \* N300 is lighter than N210 by 115 pounds.
- \* Engine power essentially identical; N210's Continental engine was a prototype and only made 203 horsepower, while the Lycoming is rated at 200



HP. (Continental delivered to Customers have been dyno'd at 212-214 HP).

- \* We did not address cooling drag or install a cowl flap on N210.
- \* At the same power settings, 2500 rpm and 25" @ 3000 feet, the same loading with 2 aboard and full fuel, and for the same stage of development regarding cooling drag etc (that is, prior to the current refinement of N300), the speeds compare as follows:

N210 186 MPH IAS (As in the AOPA article)  
N300 173 MPH IAS

This is a significant variation. Obviously we can't compare N210 and N300 directly, which prevents any firm conclusions, but based on the above we suspect more thrust from the Continental-McCauley than the Lycoming-Hartzell. By reducing cooling drag etc. on N300 we have increased its speed to equal N210, but we expect those same refinements will likewise benefit the Continental version, so we suspect Continental powered EXPRESS'S will be faster than the Lycomings. A number of customers have the Continentals, so we'll soon see.

#### N300EX ON TOUR

We are preparing to send 300EX on several tours throughout the country and will mail the itineraries to you when the plane will be in your area. We hope all builders will be able to see N300EX and meet the WTI staff. Our first trip will be to the Copperstate fly-in at Prescott Arizona on October 4-5, and then throughout California and Oregon. Although we would like to offer free rides to existing customers, we must offset the considerable expense of the tour. As you know, in order for us all to do well in the long run, WTI must be profitable. Therefore, as in the past, we must charge \$75 dollars for demo flights, except for Volunteers who may fly at no charge. Also, because the primary purpose of the tour is new sales, we must give preference to new customer demo flights, although we will make every effort to allow adequate time for existing customers to fly also.

#### NTSB REPORT

The final report has been released and it reveals nothing new, except that the eyewitness, who was an oilfield worker, described N210 descending in a spin as opposed to a spiral.

**CUSTOMER AIRPLANES** On a recent visit to Northern California with N300EX, we stopped in Grass Valley to check out Jim Warner's plane. What a pleasure to see the first of many other EXPRESS'. Jim started work on his EXPRESS in April of 1990 and despite our 6 month shutdown and the month he spent in Gig Harbor as a Volunteer, he's now just wrapping up the details. He's run his engine so he can't avoid flight for much longer. He's added many nice touches such as separate molded induction inlets and passages from the front of his cowl to a control box which will switch between ram and filtered air - should

work great. Jim's (and son Dennis's) workmanship is beautiful and, as in the induction system, they have created other novel and enviable features on their plane. They've got a large, well equipped shop at their home in the foothills of the Sierra Nevada Mountains in California which is fabulous setting for building an airplane (or anything else for that matter).

Ed Bernard of Oregon has finished his tail quad installation and is working on his control surfaces, as are several others. We've shipped some 35 kit 5's so far, and there are about 10 builders who are far enough along to make Sun 'N Fun '92, so we should have some company there.

#### BACKORDERED PARTS

If any parts are backordered from 1991 shipments they will be *automatically* shipped as soon as we receive the item(s). Only on backorders prior to bankruptcy do the builders have to reorder backordered parts.

#### GVT RESULTS

The 72 page GVT report was available for review at Oshkosh, and of course is available at the factory. The following is quoted from the conclusions section:

"The Wheeler Express 200 hp kit airplane meets the flutter criteria of FAR 23.629 based on compliance with FAA Report 45 (Simplified Flutter Criteria) with the following design requirements:

- \* Aileron statically mass balanced about the hingeline.
- \* Elevators statically mass balanced about the hingeline.
- \* Rudder statically balanced forward of the hingeline to -10 in-lb.
- \* Tab and aileron free play limited to maximum of 2.5% of the chord surface to be made a part of the assembly instructions.
- \* Design dive speed, Vd, limited to 257 MPH"

If you would like to receive a copy of report, please send \$15.00 to cover costs.

#### WTI OPERATIONS

When calling, please say hello to our new all 'round office person, Barbara Kinscherf. She answers the phones and manages to keep much of the rest of the office in working order as well. She's a welcome addition and great help in handling our increased activity.

Although we're gradually and carefully adding personnel to deal with the many areas of the business that need attention, please bear in mind that we are still under-staffed and cannot move as quickly as we would like to address all the issues. Our ability to serve our customers is tied directly to the number of orders we receive. As orders increase, will continue to enlarge our staff to meet our customers needs.



An area that has not been mentioned much in previous newsletters, but critical to your (and our) success, is manufacturing. We have been working hard to reduce the cost of producing kits so that restoring our financial health will not be dependent on price increases. Over the last few months we've made some substantial progress in this area. Here are some examples:

- \* A new pressure mold for landing gear legs gave us an eight-fold improvement in efficiency, with lighter legs as well.
- \* Careful management of purchasing and inventory utilizing the Just-In-Time concept maximizes cash flow and keeps our inventory investment at a minimum.
- \* A detailed analysis of outside machining and welding costs has resulted in more work being done in house which has reduced purchasing costs, and in some cases improved delivery and/or quality. WTI now has two full time employees in the machining/welding department.
- \* We are evaluating machine application of resin which promises to significantly reduce labor costs on the larger parts.

#### **THE ASSEMBLY MANUAL or, "WHEN ARE WE GOING TO GET MORE PROCEDURES?"**

WTI also welcomes Dave Pendleton, our newest employee. Dave is a customer who moved to the Northwest from the Phoenix area during the summer. As a Volunteer he helped prepare N300 for Oshkosh and flew back with us. He proved his mettle by driving our rented Ryder truck back from Oshkosh after the show. Dave's background is in high technology manufacturing and computer operations. In his previous employment he was responsible for selecting and implementing an accounting, manufacturing and materials control software package, which happens to be the same one used by WTI, so his experience in that area will be invaluable. His first responsibility however, is to finalize the assembly manual utilizing the unpublished procedures and Volunteer's work and notes and by proving and writing untried procedures such as the new door latch installation. As he becomes familiar with the various procedures he will also be able to contribute builder support. With his strong computer and writing background, as well as very capable hands-on skills, Dave will be an asset in many areas. Get ready for new manual sections and increased builder support.

#### **THE RG**

Several customers have asked for more procedures on the RG. There are un-released procedures and Dave will get them out as quickly as he can so the RG builders can continue also. Several wish to continue with kits 3,4, and 5, in that only kit 3 is affected by retracting the nose gear. Going forward now will make the final installation of the nose gear well somewhat more difficult because the fuselage halves are joined, but it shouldn't be too bad. Let us know

if you wish to do so. Several of the builders have volunteered to help produce and proof the documentation.

#### **BANKRUPTCY**

The Company's reorganization plan was overwhelmingly approved by both customer and trade creditors. 71% of the customer/creditors voted, with 86% in favor (23 customer/creditors voted to reject the plan. Trade creditors voted to approve by 93%. According to the attorneys these percentages are unusually high, so thanks again for the support. Much work went into it, and we are doing our utmost to insure its success. Many of you are anxious to order kits under the 65% option in the plan, but WTI cannot accept orders under that option until WTI exits bankruptcy.

It is important to note that in order to exit bankruptcy, the Company must raise additional capital. The Company is looking for "airplane oriented" investors, so if you are an "Accredited Investor" (income exceeding \$200,000 for the past two years, or net worth exceeding \$1 million), and would be interested in participating in the company's growth, please contact Ken Wheeler.

#### **CONTINENTAL ENGINES**

Since WTI introduced the Continental IO-360ES engine, they have been sold one at a time. Now however, many builders are on the home stretch with their kits, and several have called to inquire as to the availability of the Continental, so we asked Continental about special pricing for a group purchase. They're interested, but need to know how many, so if you are anticipating a new Continental for your EXPRESS in the next six months and would like to save some money on your purchase, please respond on the questionnaire. (This applies to other equipment also.) Current price is \$23,625 and specification sheets are available if you're interested.

#### **CONCLUSION**

WTI has made tremendous progress under difficult circumstances (thanks to the efforts of many, many supporters) and we hope all our customers feel as good as we do. There is still work remaining to undo the damage caused by detractors, but we're here for the long haul and are totally committed to supporting our customers in building their EXPRESS'. We are 100% confident in its safety, we believe it is the best of its type on the market, and as time passes we hope those of you who are still concerned will come to realize the EXPRESS is no less than you thought it was when you first ordered it. After all the allegations, the EXPRESS and its testing speak for themselves. Time will only further confirm its safety and performance.

Thanks to so many of you for keeping your faith in the company and the EXPRESS. You are why we are here.



**WHEELER EXPRESS '91 DEMONSTRATION TOUR I  
NEVADA/ARIZONA/CALIFORNIA/OREGON  
OCTOBER 4 - 13**

AREA	DATE	TIME	AIRPORT	ID	FBO
RENO NV	OCT 4	1200-1400	RENO CANNON	RNO	STEED AIR
PRESCOTT AZ	OCT 5	ALL DAY	LOVE FIELD	PRC	COPPERSTATE FLY-IN
LONG BEACH CA	OCT 6	1000-1700	LONG BEACH	LGB	ATLANTIC AVIATION
FULLERTON CA	OCT 7	0900-1200	FULLERTON	FUL	WINGS EXPRESS
SANTA BARBARA CA	OCT 7	1400-1600	SANTA BARBARA	SBA	TERMINAL
MONTEREY CA	OCT 7	1800-1900	MONTEREY	MRY	DEL MONTE AVN.
SAN JOSE CA	OCT 8	0900-1600	SAN JOSE INTL	SJC	S.J. JET CENTER
SANTA ROSA CA	OCT 8	1700-1800	SONOMA CNTY.	STS	DRAGON FLY
VACAVILLE CA	OCT 9	0800-1000	NUT TREE	O45	RAMP
MODESTO CA	OCT 9	1100-1200	MOD. CTY/SHAM	MOD	TERMINAL
BAKERSFIELD CA	OCT 9	1400-1800	MEADOWS FIELD	BFL	KC AIR
PALM SPRINGS CA	OCT 11	0900-1200	PALM SPRINGS	PSP	AMR COMBS
SAN DIEGO CA	OCT 11	1300-1700	MONTGOMERY	MYF	TERMINAL
SAN DIEGO CA	OCT 12	0830-0100	BROWN FIELD	SDM	EAA HANGAR
CORVALLIS OR	OCT 13	0900-1300	CORVALLIS	CVO	TERMINAL
PORTLAND OR	OCT 13	1400-1700	AURORA ST.	3S2	AURORA AVIATION

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FORWARDING AND ADDRESS  
CORRECTION REQUESTED

