

Billing Nightmare!

Evaluating your maintenance shop's paperwork

THE OWNER OF A pristine, turbonormalized A36 Bonanza was obviously frustrated. "I fly only 50 to 75 hours a year," he said, "but my annual inspections have been running between \$8,000 and \$12,000 every year despite my low flying time. I think my mechanic is honest and thorough, but I think he spends about 100 hours doing the inspection. Perhaps he's overdoing it?"

I asked the owner to fax me the shop's invoices from the past two years. What I found in my review was disturbing. It wasn't just the totals that bothered me—about \$7,000 for the 2008 annual and more

than \$12,500 for the 2009 annual—but the obscure, perhaps even intentionally cryptic nature that made them nearly impossible to evaluate. I've been looking at maintenance invoices for more than two decades, and these were the most inscrutable. Take a look at Figure 1 to see what I mean.

This invoice contains an astonishingly detailed description of the work performed;

FIGURE 1

An invoice for the 2009 annual inspection of a Bonanza A36.

The following bill is for services rendered to Beechcraft Bonanza, [redacted] between May 18 and June 10, 2009.

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Total for parts: \$4,380.63

Total, labor and parts: \$12,538.13

Labor for above service: 125.5 hours @ \$65.00/hour = \$8,157.50

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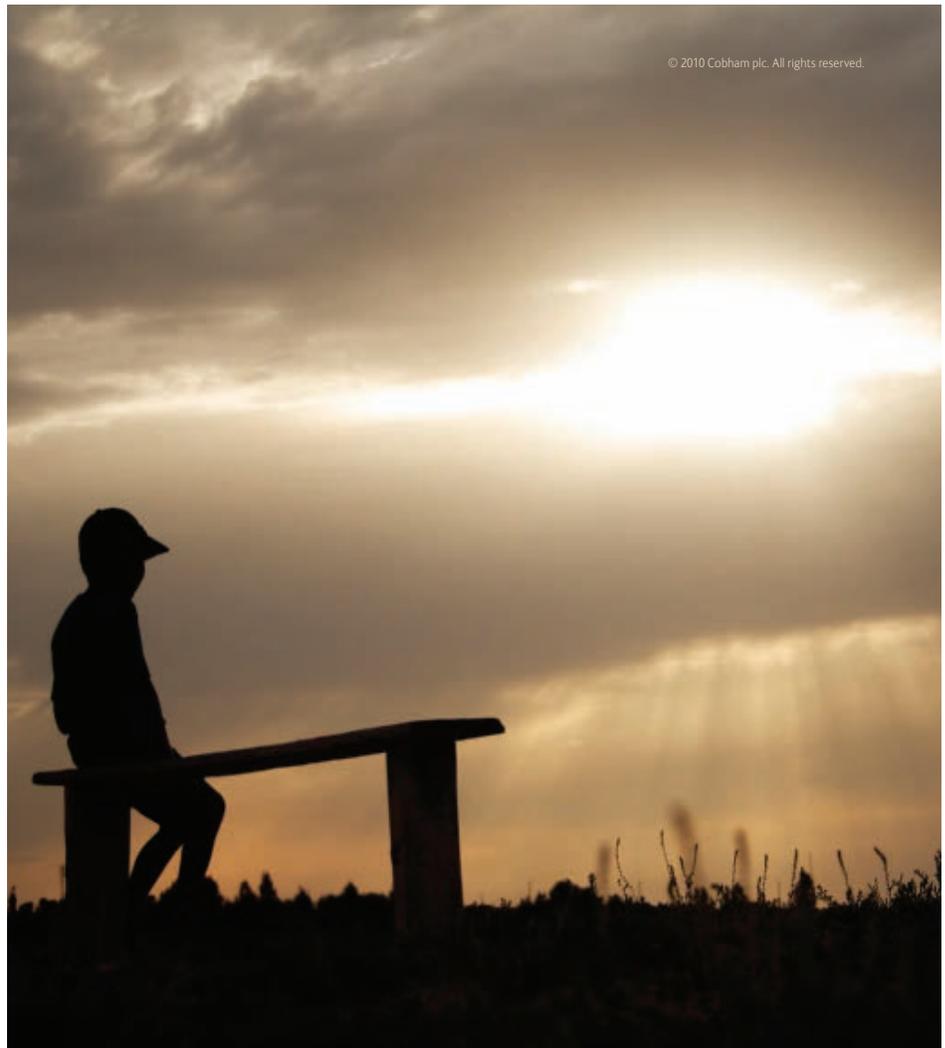
There is no breakdown of how much labor was expended on each maintenance task. There is no information about how much of this labor was devoted to inspection and how much to repairs.

it goes on for five full pages of dense, single-spaced text, followed by a single invoice line-item documenting 125.5 hours of labor at \$65 per hour, for a total labor charge of \$8,157.50.

There is no breakdown of how much labor was expended on each maintenance task. There is no information about how much of this labor was devoted to inspection and how much to repairs. There is no information about which repairs were airworthiness items required by regulation or required to make the airplane safe to operate, and which repairs were recommended or discretionary that the owner could have chosen to approve or decline. An invoice like this is both unacceptable and unprofessional.

I asked the owner whether the shop had quoted him a flat rate or estimated charge for the inspection part of the annual. He said no.

I asked the owner whether the shop had presented him with a discrepancy list after the inspection was completed, discussed repairs of those discrepancies, estimated the cost of those repairs, or obtained the owner's approval to perform the repairs. He said that no estimates were provided and no approvals were sought. He added that when he asked the shop to estimate when the annual would be finished, it declined to commit to a date, saying, "It will be done when it's done." (The aircraft was in the shop for nearly two months for the 2009 annual.)



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FIGURE 2

Invoice for the 2009 annual inspection of a Cirrus SR22.

Item	Description	Hours	Subtotal			
Emergency	Fuel gauges are over 200% showing		\$ 0.00			
Corrective Action	Customer declined any corrective action at this time.					
Labor	\$0.00					
Parts	\$0.00					
Shipping	\$0.00					
Item Subtotal			\$0.00			
Emergency	Amp meter does not indicate and both of trip lights do not function.	2.00	170.00			
Corrective Action	Installed new MCU 130 PWS 9880-800 of 8/4/09/04					
Inspection Information	Inspected 01/10/2009 at 114300					
Qty	Unit	Part Number	Description	Serial Number	Unit Price	Subtotal
1	ea	9800-001-E	MCU - 130 (PWS) MS-7715 (Ship 12.5%)	0624	3,852.00	3,852.00
Labor	\$170.00					
Parts	\$3,852.00					
Shipping	\$15.00					
Item Subtotal						\$4,037.00
Emergency	RTR all side panel needs to be secured on the lower section	0.25	21.25			
Corrective Action	Secured RTR all side panel					
Inspection Information	Inspected 01/10/2009 at 114300					
Labor	\$21.25					
Parts	\$0.00					
Shipping	\$0.00					
Item Subtotal						\$21.25

Total Labor:	\$5,092.47
Total Parts:	\$4,185.77
Total Shipping:	\$54.10
Additional Charges:	\$100.44
Tax:	\$345.33
Amount Due:	\$9,858.11
Deposit:	\$0.00
Balance Due:	\$9,858.11

I asked the owner whether any of the repairs had been done at his request and whether he had submitted a squawk list to the shop when the annual started. He said no, the airplane had been squawk-free.

When I pored over the five-page single-spaced description of the work that had been done, I found that it was completely over the top. I won't bore you with the details—it wouldn't fit in this article—but as my airframe and powerplant mechanic/mentor Phil Kirkham would say, "We were just looking for an annual inspection, not a showplane restoration!"

HOW IT SHOULD BE DONE

I emailed the Bonanza owner a copy of a recent annual inspection invoice that we'd received for one of our managed-maintenance clients so he could see what a proper invoice (Figure 2) looked like.

I pointed out that this invoice itemizes each individual maintenance task—starting with the inspection, followed by the

repairs—and shows the labor charges, parts cost, and outside work (if any) for each task. I pointed out that each individual task was clearly labeled as to whether it was an airworthiness item or a recommended one, and for the recommended items, whether the client had approved or declined each one. This is the level of detail that should be included on any maintenance invoice. I explained that we managed this SR22 annual (as we do all of our annuals) on a step-by-step basis.

First, we ask the shop to tell us its flat-rate inspection fee for the aircraft and exactly what is included in that flat rate. We review this with our client and obtain his or her concurrence, then approve the shop to perform the inspection for the quoted flat-rate fee, with clear instructions that it's authorized to perform only the inspection and not perform any repairs or order any parts (yet).

Once the inspection is complete, the shop presents us with a work order that

At the completion of the work, the shop presents us with an invoice that should be nearly identical to the approved items on the estimate, so there should be no surprises.

contains a discrepancy list, repair recommendations, and detailed estimates (parts/labor/outside work) for each recommended repair. (This discrepancy list and estimate looks very much like the invoice and is generated by the same software.) We review the discrepancy list with the client and make recommendations as to which items should be approved and which can be declined. Once we and our client are in agreement, we give the shop written direction that approves certain repairs and declines others.

The shop updates its work order based on that direction and then proceeds with the approved work. At the completion of the work, the shop presents us with an invoice that should be nearly identical to the approved items on the estimate, so there should be no surprises. We review the invoice and compare it to the estimate, and if we don't see anything questionable, we advise our client that the invoice is approved for payment. The client then pays the bill and picks up the airplane from the shop.

This structured protocol ensures that the owner remains in control of his or her aircraft's maintenance, is "in the loop" on all major decisions, and does not suffer sticker shock upon receiving the invoice. It's the way maintenance should be done.

I advised the Bonanza owner to handle future annuals and major maintenance events in a similar step-by-step fashion, and to insist on receiving detailed written discrepancy lists, repair estimates, and invoices that clearly itemize the cost of each individual repair. I suggested that if his current shop was unwilling to work in such a structured fashion and provide such documentation (and I'm almost certain it will refuse to do so), he would be well-advised to find another shop that's willing to work in a more professional fashion. *EAA*

Mike Busch, 2008 National Aviation Maintenance Technician of the Year, has been a pilot for 44 years, logging more than 7,000 hours. He's a certificated flight instructor and an airframe and powerplant mechanic with inspection authorization. E-mail questions to Mike at mike.busch@savvyaviator.com.