

January 12, 2008

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Subject: Continental Engine Airbox Repair

Dear Kurt:

Please complete the following air box repair. **Note the new addition of item #2. I forgot to include this in the original solicitation.**

Item	Qty	Description	Comments
1	1 lot	TIG, MIG, or Braze McFarlane Aviation shaft to butterfly valve in airbox. Weld or braze in 3 places per AVGLAS Drawing B5, "Shaft Kit Installation Instructions and Application," and customer photos.	Photo shows customer fixturing consisting of #4-40 SHCS that temporarily hold shaft to butter fly. Recommended sequence of brazes or welds shown on photos. Remove screws after welding/brazing
2	1 lot	Weld closed two holes on back side of air box	See page 4 for description

Material notes: Butter fly valve is 0.040 in thick 4130 normalized steel. Shaft material is steel, but type alloy is unknown. Shaft is FAA/PMA approved McFarlane Aviation part under STC SE 00164SE. Airbox is used condition.

Minimum Heat Notes: Use process to minimize heat transfer to bronze bushing bearing blocks on sides of airbox. Customer will rivet bearing blocks will be riveted in place using Monel rivets. Customer is recommending TIG welding of shaft to butterfly valve. Wet rag heat sinks recommended for bushings during welding. **Customer recommends weld lengths of approximately 1/2-in to 1-in max or multiple tacks to avoid distortion** (see photos). Phone conversation with McFarlane indicates flexibility in assembling butterfly and shaft. Form and function are the only requirements. Method is at discretion of customer.

Budget: Customer budget is limited. Customer is looking for lowest-priced, technically acceptable service provider.

Shipping: Customer will pay for packaging and shipping of part

Thank you and God bless.

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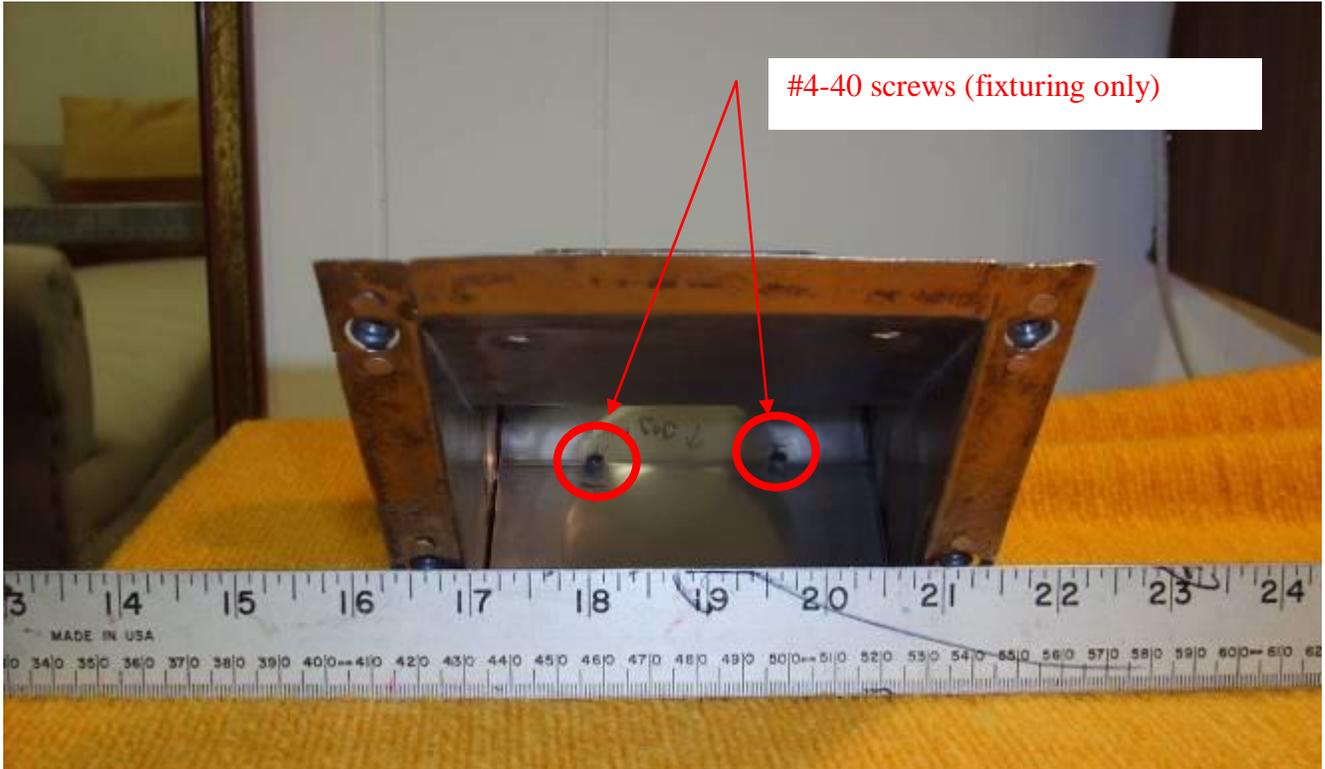
Attachments (AVGLAS Dwg B5 and STC SE 00164 SE)

Airbox Overall View

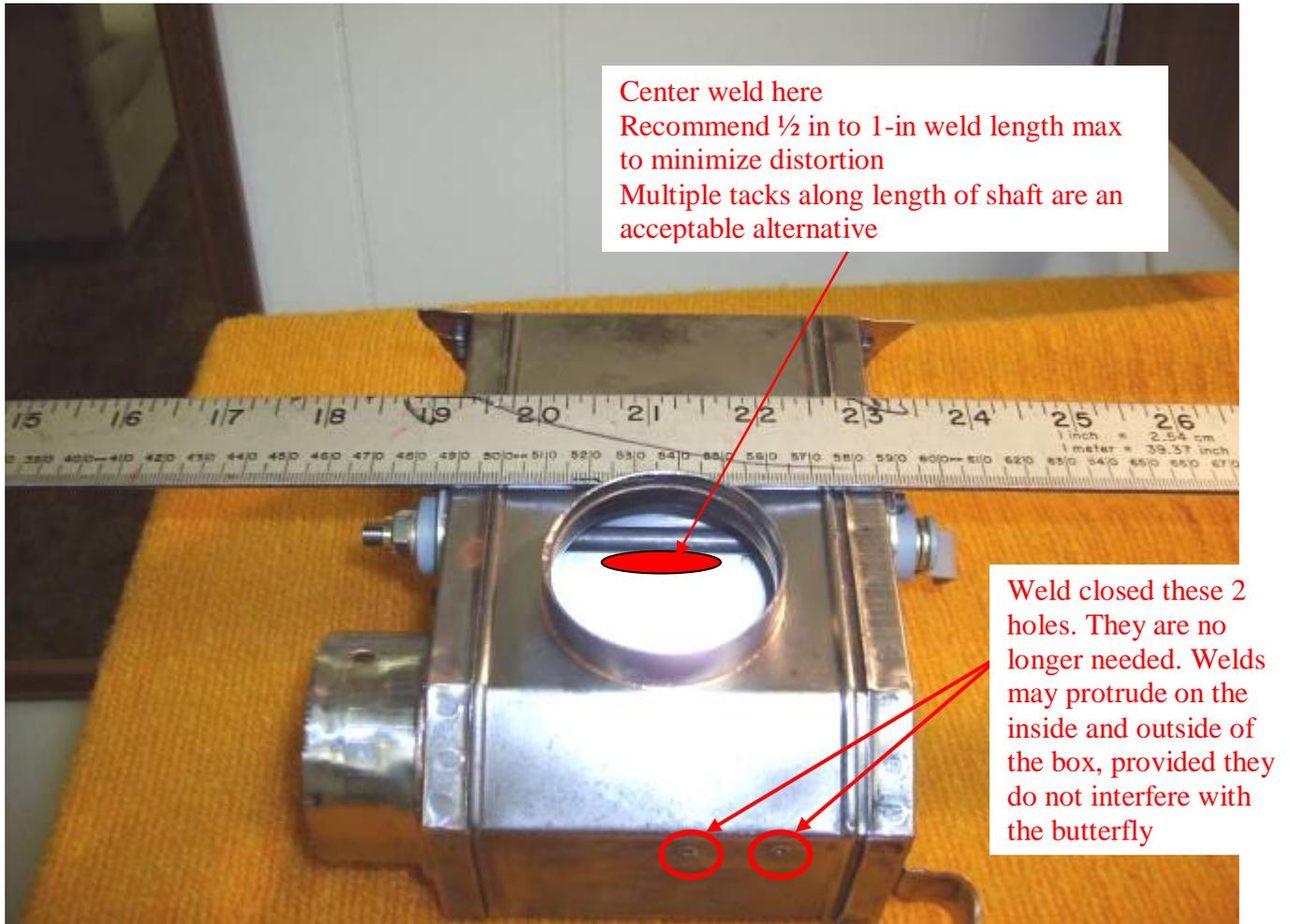
Bronze bushing. Cover with wet rag heat sink during welding of butterfly to shaft



#4-40 Screw Fixturing (remove after welding, one screw at a time)



Airbox Access for Center Weld (Weld #1)



Front Access for Side Welds



Weld here (Weld #'s 2 and 3). Remove #4-40 screw after each weld, in sequence

These welds should be $\frac{1}{2}$ in max to minimize distortion
Multiple tacks are an acceptable alternative