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SERVICE BULLETIN

No. SB-AG-49

August 1, 2008

SEAT SUPPORT BRACKET INSPECTION AND REPAIR

Thrush Aircraft, Inc. Airplanes Affected:

<i>MODEL</i>	<i>SERIAL NUMBERS*</i>
S2R-T34	T34-273 through -288*
S2RHG-T34	T34HG-103 through -107*
S2RHG-T65	T65HG-011 through -022*
S2R-T660	T660-109 through -123*

Ayres Corp. Airplanes Affected:

<i>MODEL</i>	<i>SERIAL NUMBERS*</i>
S2R	2490, 2492 through 3002* 5000 through 5100*
S2R-T34	6000 through 6049, T34-001 through -272, T41-090 through -225*
S2R-T15	T15-001 through -044*
S2R-R3S	R3S-001 through -011*
S2R-T11	T11-001 through -005*
S2R-R1340	R1340-001 through -035*
S2R-R1820	R1820-001 through -036*
S2R-T65	T65-001 through -018*
S2RHG-T65	T65-002 through -009, T65HG-101*
S2R-T45	T45-001 thru -015*
S2R-G1	G1-101 thru -115*
S2R-G5	G5-101 thru -105*
S2R-G6	G6-101 thru -155*
S2R-G10	G10-101 thru -168*
S2RHG-T34	T34HG-101 & -102*
S2R-T660	T660-101 through -108*

* with or without DC suffix

REASON FOR PUBLICATION:

Recently on our production line two P/N 10892-8 seat support bracket assemblies were found to be cracked in a weld. The cause of the crack was determined to be that the weld did not go all the way around the part, as the drawing specified. Cracking of this part in service could lead to its failure, which would mean the seat is attached to the rails in only 3 of the 4 designed locations. The extra stress on the remaining brackets could cause them to crack and fail sequentially until the seat is no longer attached to the aircraft. A loose pilot's seat could cause loss of control of the airplane and potentially a crash.

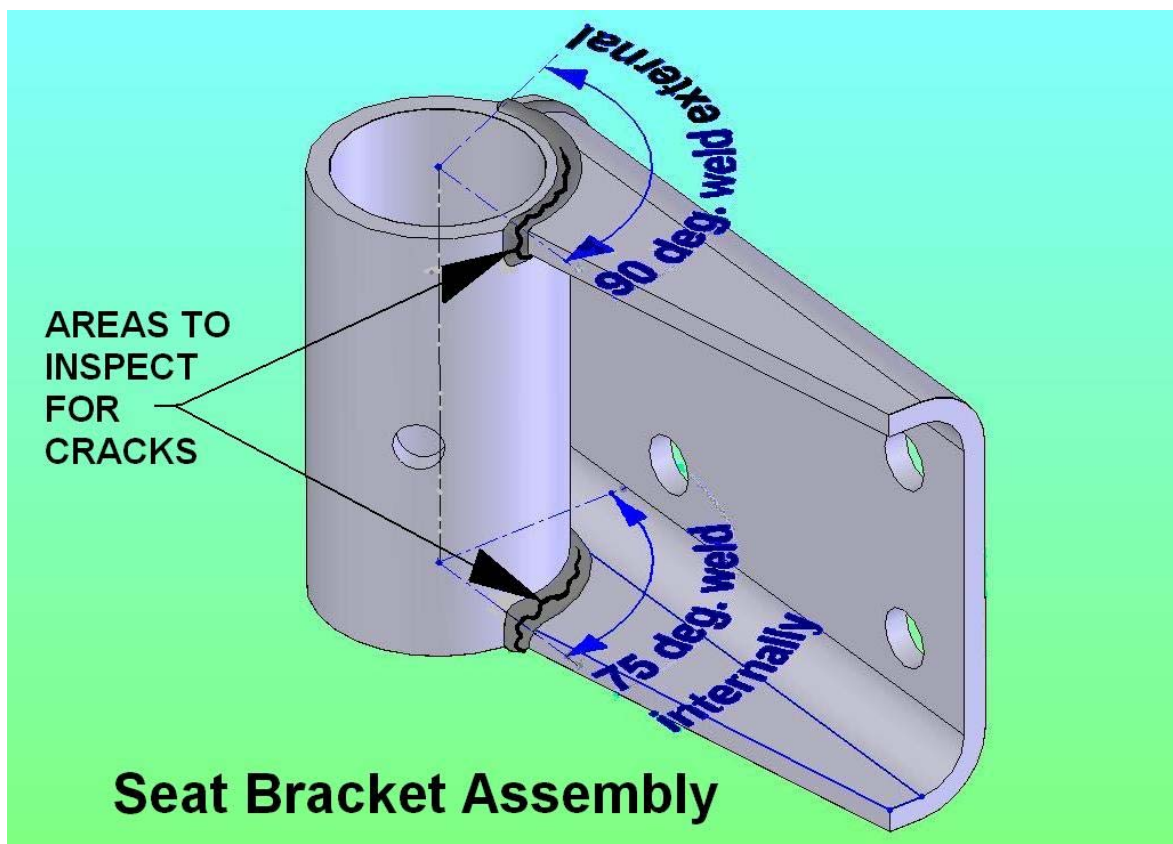
COMPLIANCE:

Inspection of the 10892 -8 seat bracket assemblies must be accomplished immediately upon receipt or downloading of this service bulletin. The 10892-8 bracket assembly, which holds the seat to the rails at the top, is shown below. While accomplishing this inspection, also inspect the lower seat bracket assemblies, which are constructed similarly. Inspect as follows:

1. The outside joints, as seen at the top of the illustration below, must not be cracked and should be welded over a 90 degree arc minimum.
2. The inside joints (as seen at the lower crack in the illustration) between the tube and the bracket must not be cracked and should be welded around 75 degrees minimum.

If these two criteria are met by all 4 seat brackets, this one time inspection is all that is needed.

3. If the inside joints are not welded, or are not welded over at least a 75 degree arc, the bracket assembly must be re-inspected every 100 hours thereafter until it is replaced with a new one or it is removed and welded properly.
4. If a weld joint is cracked, the bracket must be replaced or repaired **before further flight**.



BY WHOM WORK WILL BE ACCOMPLISHED:

FAA licensed A&P mechanic or foreign equivalent:

APPROVAL:

This Service Bulletin is FAA approved

MAN HOURS:

1 to 2 hours for inspection, 4 to 6 hours for part replacement or repair.

SPECIAL TOOLS:

None

INSPECTION:

Using a flashlight and mirror, inspect the inside weld joints between the tube and bracket of the seat bracket assemblies for evidence of cracking. There are two joints per assembly, and 4 assemblies, so 8 locations must be inspected. If a crack is suspected, remove the seat from the cockpit and remove the bracket assembly from the seat rails so that it can be more carefully inspected.

If the seat bracket assemblies are not welded on the inside, as described above, this inspection must be repeated every 100 flight hours until the bracket assemblies are repaired or replaced.

Thrush Aircraft, Inc. will replace any discrepant brackets free of charge for aircraft manufactured by Thrush Aircraft, Inc.

REPAIR:

1. Un-cracked brackets not properly welded should first have the paint removed from the joint to be welded. Then proceed to step 3.
2. For cracked brackets, clean the weld area of all paint, dirt, etc. down to bright metal. A wire brush is a logical choice for this cleaning. If the crack has opened up or shows signs of having absorbed grease or oil, use a Dremel type tool with a thin abrasive wheel to clean the crack out. If the inside joint is not cracked but is not properly welded, remove paint from this area in a similar manner.
3. Re-weld the joint, using TIG or acetylene method and a 4130 steel welding rod. Start at the inner-most point in the joint and working out to the outside edge. The fillet weld should be a minimum of 1/8" wide and 1/16" high, with good penetration and no blow-holes.
4. Clean and refinish the part with epoxy primer and a top coat of your choice, to prevent future corrosion.

RECORD OF COMPLIANCE

- a. If no bracket is cracked and all are welded properly, make the following entry in airplane maintenance records: **“Thrush Service Bulletin SB-AG-49 inspection requirement complied with at _____ total hours on aircraft. No seat brackets were found cracked and all seat brackets are properly welded.”** This satisfies the requirements of this Service Bulletin completely.
- b. If a bracket(s) is found cracked or not welded properly but is immediately replaced or repaired, make the following entry in airplane maintenance records: **“Thrush Service Bulletin SB-AG-49 inspection requirement complied with at _____ total hours on aircraft. Discrepant seat brackets were replaced”** (or **“repaired”**, as appropriate) **“and all seat brackets are now properly welded.”** This satisfies the requirements of this Service Bulletin completely.
- c. If no bracket is cracked but one or more is not welded properly, make the following entry in airplane maintenance: **“Thrush Service Bulletin SB-AG-49 inspection requirement complied with at _____ total hours on aircraft. Re-inspection is required in 100 flight hours.”**

The mechanic doing the work and making the log book entry will enter his name and certificate number in the log book with the appropriate entry. When the discrepant bracket(s) is repaired or replaced, entry “b.” may be made in the aircraft log book.

RESPONSE CARD

The final step in compliance with this Service Bulletin is to complete and return the compliance card on the next page. It may be mailed, Faxed, or scanned and e-mailed. This is to be done only after no more inspections are required.

FAX to: Greg Moreland 229-436-4856

E-mail to: Greg Moreland gmoreland@thrushaircraft.com

Or, tape and send the card via snail-mail.

Service Bulletin SB-AG-49 Rev. B Compliance Report

Aircraft S/N:	_____	Aircraft Owner:	_____
Aircraft Registration #	_____	Address of Owner:	_____
Airframe total time:	_____	City & State:	_____
Engine total time:	_____	Physical location:	_____
Date of Compliance	_____		
Complied with by:	_____	Certificate #:	_____
Signature:	_____		

PLEASE RETURN THIS REPORT ONLY WHEN INSPECTIONS ARE NO LONGER REQUIRED

This response card may be mailed, Faxed to (229) 436-4856, or e-mailed to gmoreland@thrushaircraft.com. Digital photos can be sent as attachments to the e-mail.

fold, tape & mail (Do Not Staple)

Return Address

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