



## SERVICE BULLETIN INDEX

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\*SB-XX = Recurring checks

# **SERVICE BULLETIN No 1 Issue 1 5-10-01**

## **AMMENDED SEAT HARNESS ATTACHMENTS**

The inboard seat attachment points are to be lowered to allow correct positioning of the Lap Straps

To carry out this operation:

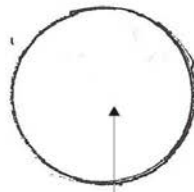
1. Remove the 8ea seat retaining setscrews and the door strut ball joints
2. Remove the inboard seat belt retaining screws disconnect and remove the inboard lap-straps.
3. Remove the seat
4. locate the two each seat belt brackets Ale {10} and reposition aft or "cut off" close to rivet. [See chapter 4 drawings A1d, Ale.
5. Mark the two each forward brackets Ale {2} Pt No 42A 01.01 li & re, mark & pilot drill. If necessary place a piece of metal behind the bracket to ensure that the main tube {1} is not damaged. Drill the holes out to 8 mm and secure inboard portion of the lap-straps with the screws & nuts supplied. See drawing Ale.
6. Mark the positions on the seat for the Lap-strap entry points using the template provided.
7. Using a suitable tool such as a Dremel cut a slot as per the template on both sides of the seat clean and smooth any sharp edges.  
Reposition the seat and feed the Lap-straps through the slots, slide the anti-chafe heat shrink tubing over the straps to prevent chafing. Install the two each bungs provided into the redundant strap bracket holes.
8. Refit the lap-straps, refit and tighten the 8ea seat retaining screws.
9. Carry out a "Full" & "Free" control check.
10. Add this amendment to your aircraft build book.
11. Contact your PFA Inspector for final clearance.

↑ ATTACH LEVEL WITH TOP EDGE OF SEAT "ARM-REST" PROFILE & WITH EXISTING SEATBELT HOLE "LINED UP" WITH TEMPLATE SEAT BELT HOLE

# C42FB LOWER SEAT HARNESS TEMPLATE

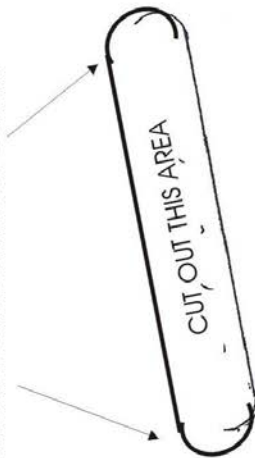
SB 1c ISSUE 2 14-8-2004

Reverse template for Right hand seat.

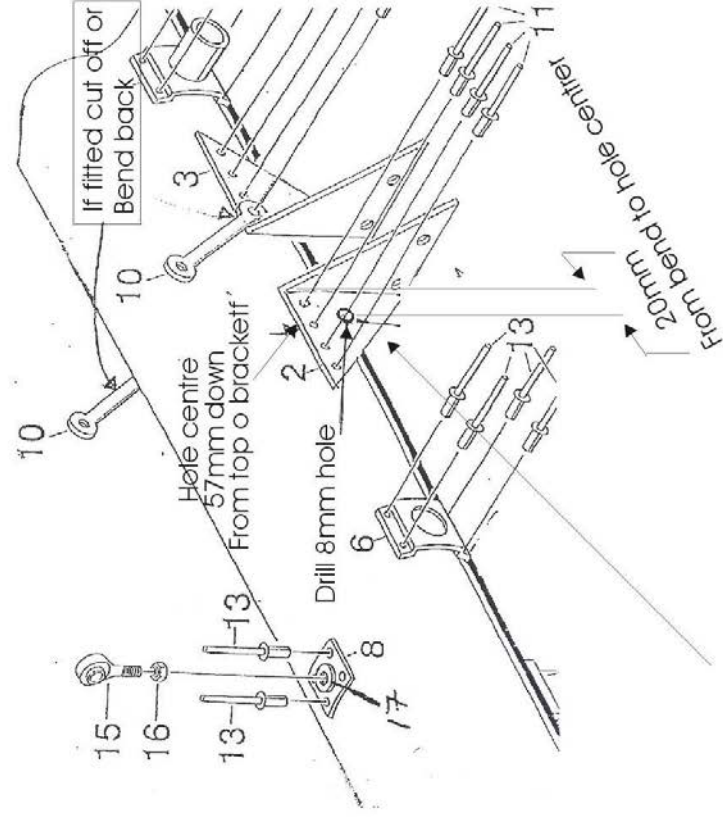


"LINE UP" ON EXISTING SEAT BELT HOLE

DRILL 8-10MM HOLE EACH END  
FORM INTO A SLOT USING "DREMEL" OR EQUIVALENT CUTTER.



SERVICE BULLETIN No 1[b] Seat Harness Attachment. Issue 2 15-8-2004



NOTE:

When drilling the 8mm hole place a metal sheet  
Behind the bracket to avoid damage to the main tube

# **SERVICE BULLETIN No 2 Issue 1 29-10-2001**

## **REPLACEMENT OF CLEVIS PINS WITH SPRING CLIP FASTNERS**

### Aileron Horn to Aileron Control Rods

- 1 Remove Clevis pins and spring clips from Aileron Horns.
- 2 Install 6mm Clevis, washers and split pins provided.

### **Rudder Bell-Crank.**

- 1 Unclip lea Nose wheel steering rod to free rudder cables.
- 2 Secure rudder cable shackles with cord to prevent them dropping into the bottom Shell
- 3 Remove Clevis pins and springs from shackle/bell-crank ***[don't drop the nylon spacers]***
- 4 Install the 5mm Clevis pins, washers, and split pins provided, remove safety cord.
- 5 Re-install the Nose wheel rod and safety clip.
- 6 Carry out a full and free check of the aileron and Rudder circuit.
- 7 Inform your PFA Inspector.

# SERVICE BULLETIN No 3 Issue 1 29-10-2001

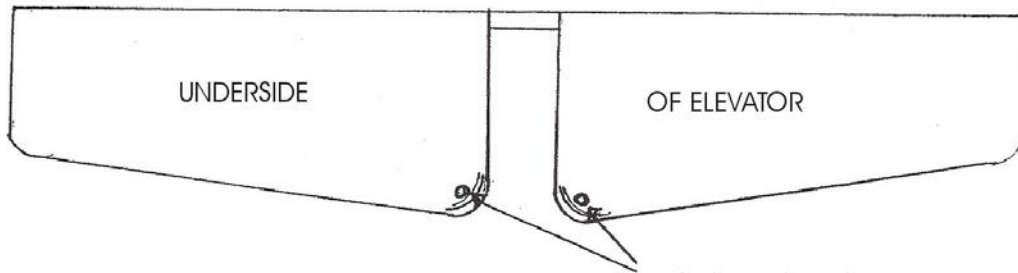
FLYBUY ULTRALIGHTS LTD C42FB U/K

C42FB U/K SERVICE BULLETIN No 3 Issue 1 29-10-2001

## DRAIN HOLES IN ELEVATORS

Reason: to provide a drain at the low point in the event of water ingress

The best method to carry out this modification is to use a small soldering iron with a pencil tip this will produce a small neat hole in the underside of the envelope "sealed" around its edges. Make the hole around 5 to 6 mm on the underside of both elevators as shown, Note; *when making the drain hole take care not to penetrate the upper envelope.*



Inform your PFA Inspector

Drain holes just inside  
Inboard of trailing edge tube.

# **SERVICE BULLETIN No 4 Issue 1 29-10-2001**

## **PITOT STATIC PIPE CLIPS**

Reason: to ensure the security of the pitot and static pipes on instruments

This bulletin is to make the builder aware that the possibility exists with pitot/static systems of errors and/or instrument failures if the system is not secure and leak proof.

The pitot & Static tubing supplied for the C42tb U/K will fit very well on all the standard GA Instrument fittings supplied.. It is essential to fit pipe clamps on the instrument fittings. Flybuy-Ultralights Ltd found that small Cable ties are quite adequate for this requirement, if possible have a pitot static leak test carried out.

Inform your PFA Inspector

# **SERVICE BULLETIN No 5 Issue 1 29-10-2001**

## **CHANGE OF FUEL FILTER TYPE**

Reason: enable visual inspection of fuel filter contents.

The New **[Blue]** fuel filter Type. Is a direct replacement for the original filter as supplied by Comco Ikarus to Flybuy-Ultralights Ltd and utilises the same hose and hose clips.

1. If required drain fuel.
2. Undo hose clips and remove filter.
3. Install new filter refit hose clips, add fuel and check for leaks.
4. Carry out ground run to check for satisfactory operation.
5. Inform your PFA Inspector.



## **SERVICE BULLETIN No 6 Issue 1 29-10-2001**

### **UNINSULATED A+ TERMINALS**

Reason; to eliminate the possibility of short circuits

Depending on the amount of electrical equipment fitted it is possible that there may be unused exposed A+ terminals on the A+ terminal block.

There are several ways to protect the exposed terminals here are two satisfactory methods

1. Fit around 10mm of heat-shrink tubing over the exposed terminals and shrink into place.
2. Fit an unused spade terminal with insulated cover to the exposed terminals.
3. Inform your PFA Inspector.

# SERVICE BULLETIN No 7 Issue 1 29-10-2001

FLYBUY ULTRALIGHTS LTD C42FB U/K

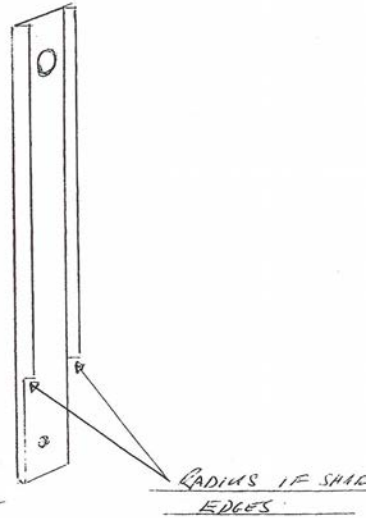
## C42FB U/K SERVICE BULLETIN No 7 Issue 1 29-10-2001 SHARP CORNERS ON ELEVATOR CRANK SUPPORT STAYS

Reason: to eliminate the possibility of cracking

Some of the 2ea U/K support stays Drawing No A81j (6) supplied by Comco Ikarus have sharp 90 deg corners where cut to fit the main tube, this could become a possible fatigue point.

1 If your support stays have sharp corners dress them out using a suitable tool such as a watchmakers round file.

2 Inform your PFA Inspector.



**NOTE: from 2003 all supports were manufactured with the required radius**

# **SERVICE BULLETIN No 8 Issue 1 29-10-2001**

## **ROD ENDS BINDING IN FUSELAGE STRUCTURE**

Reason - to eliminate the possibility of binding

It was noted on inspection of C42FB U/K G-OFBU that some of the "Rose-Joints" were fowling structure and "binding" the problem is eliminated as follows:

### **Method 1.**

1. Where possible loosen the rose joint lock nut and re-position the rose joint body position to eliminate "binding" apply Loctite and re-tighten the lock nut.

Where it is not possible to eliminate "binding" by method 1. carry out Method 2, or  
a combination of 1 & 2

### **Method 2.**

2. Undo bolts and install spacer washers as required to eliminate possible binding.

If required trim the Brass spacers to allow for the insertion of the spacer washers refit and tighten all bolts [Method 1 may also be required at this time] see **chapter 4 drawings A81a through k for reference.**

3. Inform your PFA Inspector

# **SERVICE BULLETIN No 9 Issue 1 29-10-2001**

## **JURY STRUT CLEARANCE**

Reason; to eliminate binding with the lift struts

It was noted on inspection of C42FB U/K G-OFBU that the forward end of the lift strut "tie bar" was fowling the bottom of the front Lift Strut on both sides of the aircraft the problem is eliminated as follows:

1. Undo the nuts on the front Jury strut hinge bolts, install an extra M6 washer to lift the "tie-rod" and eliminate the possible fowling use a small amount of thread loctite refit and tighten nuts if required carry out the same operation on the rear "tie-rod" fixings.

2. Inform your PFA Inspector.

## SERVICE BULLETIN No 10 Issue 1 29-10-2001

### SHORT BOLTS IN CRITICAL APPLICATIONS

Reason: to replace where possible bolts with short shanks

It was noted on inspection of C42FB U/K G-OFBU that a number of bolts in critical applications had short shanks with threads bearing on metal  
Carry out replacement of the bolts listed in the table below in some instances it will be necessary to cut excess thread from the bolt and use washers as required. Note when cutting thread ensure a "clean" cut and lead-in. use loctite where required in the build manual.

Bolt Function	Was Type	Identity	Proposed Action
Propeller[six each]	M8		Ensure that correct length M8 series bolts are fitted & that bolts are in safety.
Front D/C, box section, top lateral bolts,[four each]	M6 x 75	A3a Item 9	Replace with M6 x 75 use washers/crop and protect bolt if required
Cockpit rear top struts to "A" frame [two each]	M8x65	A8 1h Item 9 A81f Item 9	Replace with M8 x 70 use washers/crop and protect bolt if required
Rear U/C drag strut,vertical fuselage attachment bolt. [two each]	M8x25 set screw	A4E Item 14	Replace with M8 x 25 bolt, ensure, by the use of washers that bolt is not "threadbound" causing damage in Rivnut
Rear U/C drag strut, fwd. attachment vertical Bolt [two each]	M6x50	A4E Item 12	Replace with M6 x 60 use washers/crop and protect bolt if required
D/C stub axle bolt, (inboard) [two each]	M6 x 40	A4b Item 29	Replace with M6 x 50 on all aircraft. use washers/crop and protect bolt if required
D/C radial. profile strut, centre bolt [two each]	M8 x 75	A4b Item 18	Replace with M8 x 85 use washers/crop and protect bolt if required
Main axle beam to fuselage bracket, beam longitudinal bolts, [four each]	M6 x 75	A4e Item 2	Replace with M6 x 85 use washers/crop and protect bolt if required
Elevator push rod motion reversal lever, Rose joint/push rod attachment bolt, [two each]	M6 x 40	A8H Item 12	Replace with M6 x 50 each end. Use washers/crop and protect bolt if required
Elevator horn Rose joint attachment bolt [two each]	M6 x 30 set screw	D2b Item 27	Replace with M6 x 40 bolt. use washers/crop and protect bolt if required
Wing root rib to L/E attachment bolt, also securing drag wire tang. [two each]	M6 x 100	C1d Item 15	Replace with M6 x 110. use washers/crop and protect bolt if required
Compression struts to L/E spar channels [two each]	M6x 100	C1g Item 7	Replace with M6 x 110. use washers/crop and protect bolt if required
Compression struts to L/E spar channels [four each]	M6 x 100,	C1i Item 10	Replace with M6 x no. use washers/crop and protect bolt if required

Wing root rib to T/E attachment eye-bolt, also securing anti-drag wire tang, flap hinge. 2 ea	M6 x 80 eye-bolt	C1e Item 20	Replace with M6 x 85 eye-bolt use washers/crop and protect bolt if required
Compression struts to T/E spar channel. [four each]	M6 x 80	C1g Item 19 & C1i Item 12	Replace with M6 x 90 use washers/crop and protect bolt if required
Compression strut to L/E attachment channel. [four each]	M6 x 50	C1g Item n	Replace with M6 x 60. use washers/crop and protect bolt if required
"A" frame rear port side spar fitting retaining bolt [one each]	M8x 45	A81h Item 14	Replace. with M8 x 50. use washers/crop and protect bolt if required
Main axle beam to lower fuselage rose joint bracket, retaining bolts, [two each]	M8x 60	A81b & A81d Item 4	Replace with M8 x 65. use washers/crop and .protect bolt if required

Install bolts using relevant sections of the builders manual use loctite as required do Not over tighten bolts, refer to build manual for details

## SERVICE BULLETIN No 11 Issue 2 10-05-2004

### INSTALLATION OF VAPOUR RETURN FOR AIRCRAFT USING "MOGAS"

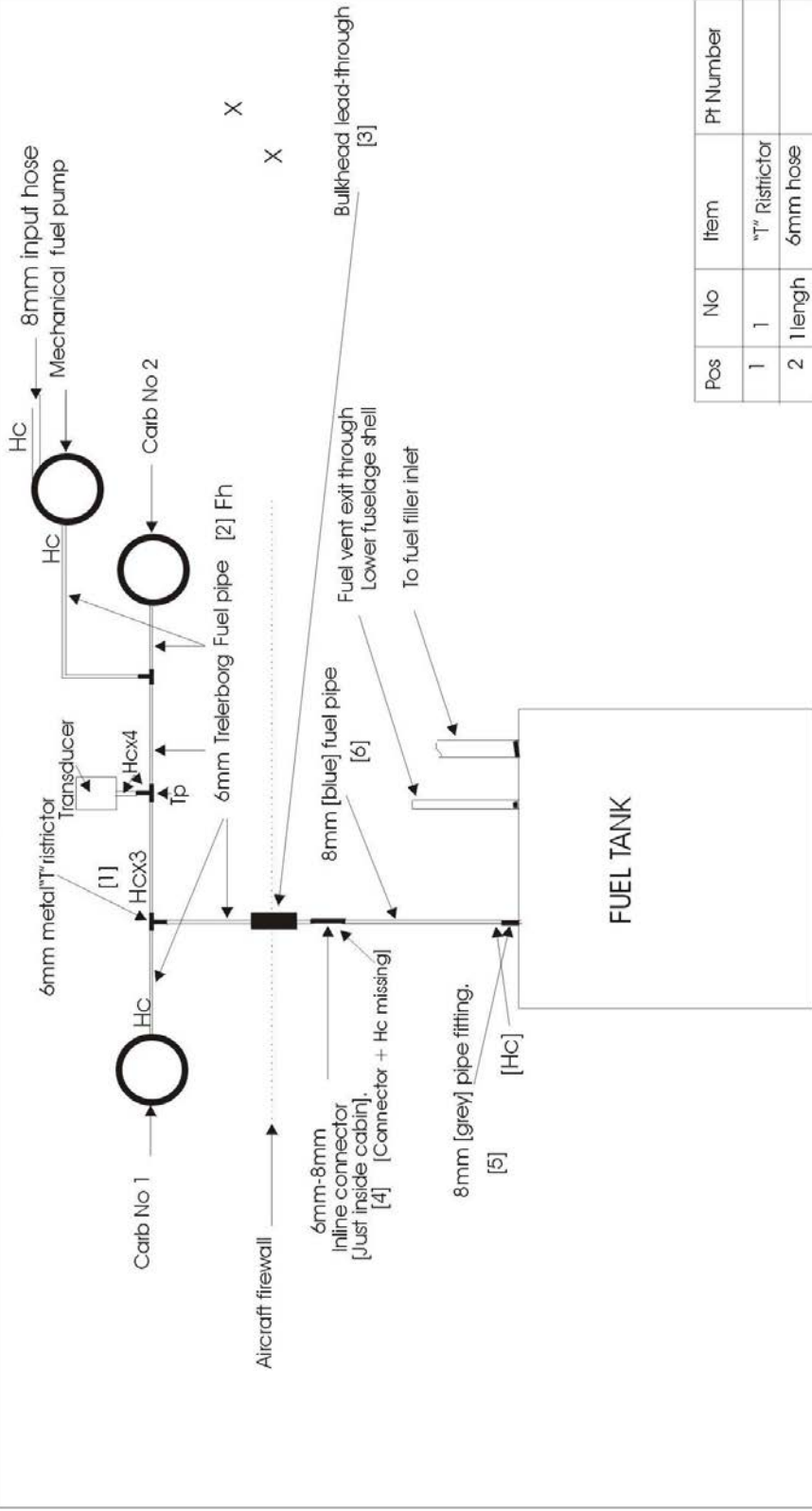
Reason: To decrease the chance of a "Vapour Lock" for aircraft using "Mogas" Fuel

This modification is deemed Mandatory for aircraft using "Mogas" Fuel

A kit of parts is available from Flybuy Ultralights Ltd to carry out this modification comprising of Treleborg Hose [Engine Compartment], Skydrive "T" piece with built in restrictor, Skydrive [blue] hose, 4ea hose clamps for Treleborg hose. 2ea clamps for Skydrive Hose, 1ea insert [Treleborg to Skydrive hose] 1ea screw in tank insert. 1ea Bulkhead Sleeve.

1. Ensure lines to the mechanical fuel pump are free of fuel.
2. Locate position on the firewall close to the large centre sleeve with no restrictions either side of the firewall remove around a 30mm diameter circle of the fire blocking material with a sharp knife.
3. Drill a pilot hole in the centre of the circle; expand the hole to fit the sleeve provided [approx 20mm] using a suitable tool such as a "Cone Cutter" clean up any swarf.
4. Insert the sleeve into the hole and seal with fire retardant sealant as per the existing large sleeve.
5. Cut the fuel pipe that feeds the two carburettors close to the middle of the engine [see photographs] making sure that no debris enters the system.
6. Install the "T" piece with the restrictor facing the firewall, fit the Treleborg hose to the "T" piece and route it through the firewall sleeve. Tighten all the hose clamps in the engine bay and use cable-ties to eliminate any fowling with engine bay components; seal the hose at the firewall as with the sleeve.
7. Drop down the instrument panel and install the Treleborg to Skydrive inline adapter fit and tighten the hose clamps. Route the hose back to the fuel tank with the existing fuel line from tank to engine use cable ties as required ***[do not tie to pitot or static lines as this tubing will kink if tight cable ties are fitted]***.
8. Remove threaded bung from rear of tank and install screw in fitting, fit return hose and secure hose clamp, make sure no debris enters the tank. Carry out leak checks.
9. **Contact your PFA Inspector before carrying out ground runs.**

# VAPOR RETURN SYSTEM



Pos	No	Item	Pt Number
1	1	1/4" Restrictor	
2	1	length 6mm hose	
3	1	Lead-through	
4	1	6/8mm Connector	
5	1	8mm pipe Fitting	
6	X	mtrs 8mm Hose	
7	4	Hose clips 6mm Pipe	
8	2	Hose clips 8mm Pipe	
9	HC =	Hose clip	Various

C42FB UK
DRAWING NUMBER
Service bulletin 11 A [additional]
Issue No 1
14-11-2002



## **SERVICE BULLETIN No 12 Issue.1 29-10-2001**

### **POSSIBILITY OF HINGE BOLTS TURNING**

Reason; to ensure hinge bolts are locked into place

Although there has not been any recorded incidences on factory built C42 aircraft this bulletin is to make instructions called for the use of thread loctite or equivalent on all hinge bolt threads. In all future kits the recommendation will be for the use of medium strength thread locking compound such as Loctite 242 on hinge-bolt threads where they screw into threaded inserts, and loctite 330 [or equivalent] on the bolt shank, & shoulder where the hinge-bolt passes through the hollow wing spar tubes.

For all builders that have constructed the wings, flaps, Ailerons, rudder, fin, tailplane, and elevators carry out checks to ensure that the hinge-bolts are secure in their fittings with no possibility of rotating and causing a jammed control.

1. This is best achieved by fitting a bar of around 120mm long through the clevis pin holes and ensuring that the hinge bolt will not easily turn if a hinge bolt turns remove it and refit using the recommended grade of thread locking compound.
2. Refit control surfaces carry out a full and free control check
3. Contact your PFA Inspector.

# **SERVICE BULLETIN No 13 Issue 2 15-01-2002**

## **RUDDER CENTERING SYSTEM**

Reason; to ensure after applying a rudder input that the rudder returns to the central position without assistance.

### **Parts required and supplied:**

Two each Angle brackets, [See chapter 4 drawing Cle {13}).

Two each Rudder return springs.

Two each 1/16th multistrand cable with integral thimbles [2ea].

Two each Replacement 6mm Setscrews.

Two each 4mm x 8mm bush.

1. Remove the port & starboard side panels [each side of control stick].
2. Lift the control stick cover to expose the 2ea bolts that secure the centre pedestal to the seat front, remove the nuts & washers
3. Remove the bolts, washers & bushes connecting the rudder cables to rudder pedals.
4. Fit the rudder return angle brackets, with springs and cables as per drawing
5. Refit the rudder cables with the additional return cable, bush & washer as per drawing use loctite on bolt thread,[as original instructions].
6. Go to the rear of the aircraft & push the tailplane down to lift the nose-wheel from the ground, the rudder should be central, move the rudder to its fully deflected position Port & Starboard, ensure that the rudder returns to its central position.
7. If required minor adjustments to the angle brackets can be made to ensure satisfactory operation
8. Make sure that there is no fouling of the pitot & static pipes [if routed in this area of the centre pedestal], and that the rudder cables have been correctly re-installed
9. Inform your PFA inspector, carry out duplicate inspection.
10. Refit the side panels.
11. Carry out flight test to ensure the rudder returns to centre after deflection to port & starboard.

## SERVICE BULLETIN No 14 Issue 1 24-01-2002

### INCORRECT SCREWS IN CRITICAL APPLICATIONS

#### "THIS IS AN ALERT BULLETIN"

Reason; It has been discovered that incorrect screws may have been shipped to some C42FB kit builders. these screws are used in the main flight control systems and installation of the incorrect screws can present a risk of failure of one or more of these systems. These screws are used to secure the fork ends to the actuating push rods or ball joints at the following locations

Screw Function	Drawing No	Proposed Action
Aileron horn to bellcrank pushrod Fork end & ball-joint fittings	Chapter 2 <b>C4b</b> item <b>11</b>	Check as per rectification action, replace if required
Aileron bell crank to cabin bellcrank ball- joint fittings	Chapter 2 <b>C4b</b> item <b>4</b>	Check as per rectification action, replace if required
UK steering rod ball joint fittings	Chapter 4 <b>A11b</b> item <b>6</b>	Check as per rectification action, replace if required

#### **RECTIFICATION:**

All owners must carry out the following checks before the **next flight**.

Inspect all screws at the locations listed above. Where the end of the screw is visible it should be possible to identify by colour whether the screw is bright plated [shiny silver in colour] or stainless steel [Dullish grey].

Where any doubt exists, consult your inspector. An acceptable alternative means of identification is to apply a magnet to the screw when removed from the fitting. If the screw is of the correct stainless steel material, it is only very slightly magnetic. If the screw is the incorrect brittle steel, it is **very magnetic**.

Replace all screws made of the wrong material, Comco Ikarus will supply complete fork end & ball joint fittings with the correct stainless screws. When removing a faulty fork or ball joint fitting [apart from **C4b** item **4**] measure the protruding thread and adjust the replacement item accordingly, carry out final adjustments as per build book use thread lock as required. **C4b** item **4** the new fittings will be supplied correctly adjusted and with the cone **C4b** item **5** fitted, [as it may be difficult to remove the old fittings because of the thread locking compound]. drill out the 3ea steel rivets securing the cones to the tube, insert the new cones complete with fittings, mark, and drill the cones and rivet with the Orlock 5x11.5mm rivets provided. **Do not forget the safety clips**

**Inform your PFA Inspector.** Carry out "full and free" control checks and also a duplicate inspection, record this action in your C42fb log book.

# **SERVICE BULLETIN No 15 Issue 1 10-11-2003**

## **ELECTRICAL FUEL PUMP, ADDITION OF NON RETURN VALVE**

Reason: to increase the fuel pressure from the “back up” electrical fuel pump

It has been noted that in some installations when carrying out the required fuel flow checks [as per the FBU inspection sheets] using the electric “back up” pump a fuel flow of 21-25 litres/per hour was all that could be achieved, the Rotax 912ULS nominally requires 27 litres/hour at full power, 912UL requires 24 litres/hour at full power.

### **MANDATORY**

Within the next 28 days carry out a fuel flow check using the electric “back up” pump, ensure that the aircraft battery is fully charged when carrying out the test. [this check should be verified by your PFA inspector].

- 1) If the check finds the required fuel pressure is within limits a log book entry signed by your inspector will suffice.
- 2) If the check finds the required fuel pressure inadequate or marginal FBU ltd strongly recommend you carry out the following modification.

### **MODIFICATION DETAILS**

To enable the electric booster pump system to meet C.A.A. Section “S” delivery requirements and to provide a bypass in the event of pump failure.

Rotax 912 UL – 30 litres/hour  
Rotax 912 ULS – 34 litres/hour

### **Brief description of modification**

Removal of the restrictor from the pump “bypass line” and insertion of a non return valve into the “bypass line”

Accomplishment procedures for modification

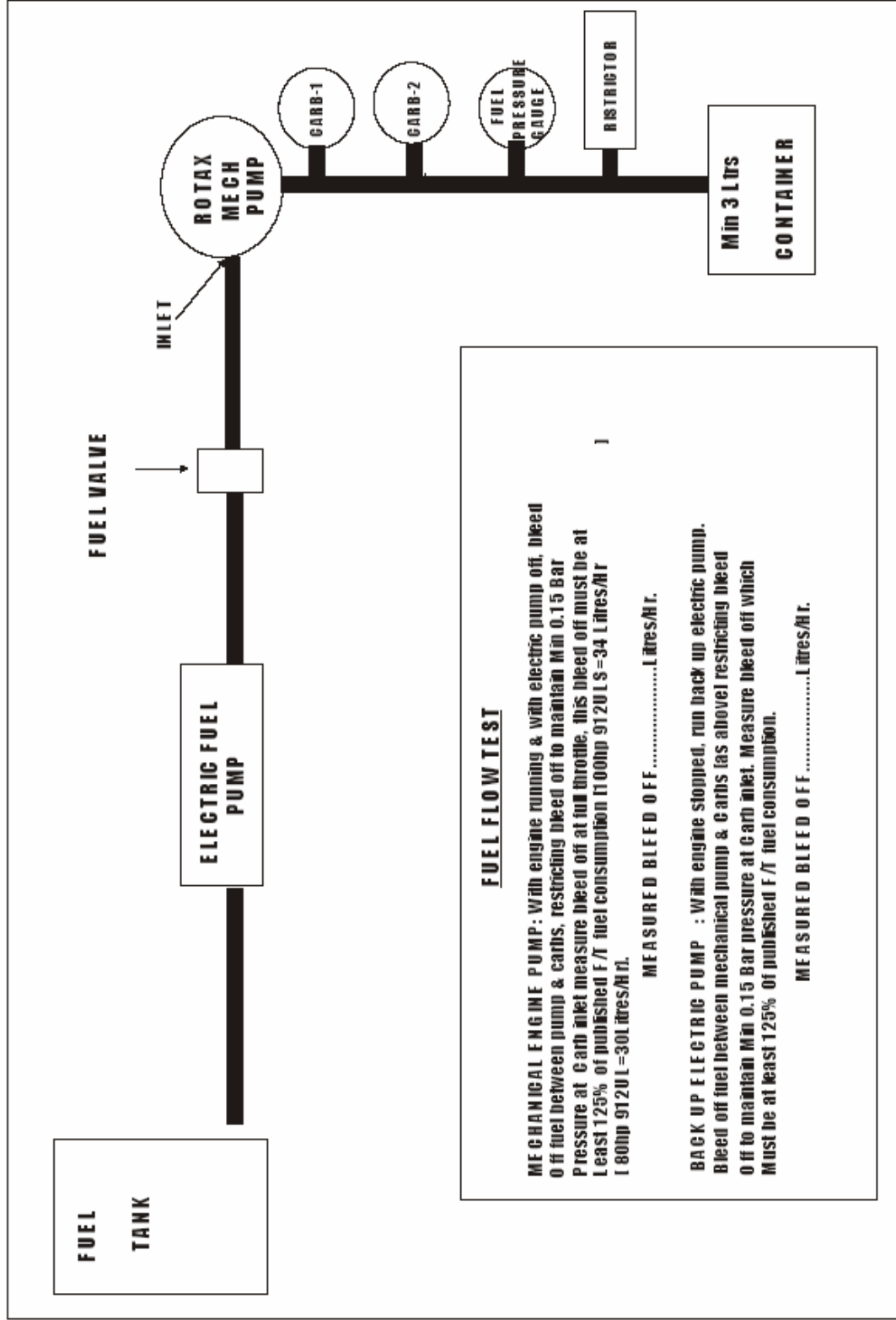
- 1) Ensure fuel cock is in the OFF position.
- 2) In a suitable hazard free area drain fuel [or clamp fuel pipe] to allow removal of the electric pump and “bypass” system.
- 3) Remove the pump fuse, and disconnect the electrical connections at the pump.
- 4) Remove “P” clip securing pump to main tube, release the inlet and outlet hose clamps at the “T” junctions and remove the pump complete with “bypass” system, use rags to soak up any fuel residue when removing the system.
- 5) Disconnect the “bypass” hose at the restrictor end and remove the brass restrictor, reconnect the hose and hose clamp. Cut the “bypass” hose in the middle and remove around 15mm from each side of the cut, Note it is important that no debris is allowed to enter the fuel system when carrying out this modification.
- 6) Install the Check Valve CK 312 H and secure each end with a suitable hose clamp, ensure that it is fitted in the direction of flow.
- 7) Re-install the pump with its “bypass” and check valve, ensure the hose clamps are installed and tight, and the “P” clip securing the pump is refitted. Use

cable ties to position and secure the check valve as required. Refit the electrical connections to the pump making sure the polarity is correct.

8) Re-fuel the system and check for fuel leaks at the pump, the “bypass”, and all areas where the fuel system may have been disturbed, when satisfied re-install the fuse, prime the system, and carry out the fuel flow tests in accordance with the FBU ltd fuel flow procedures, no additional air test is required after this modification.

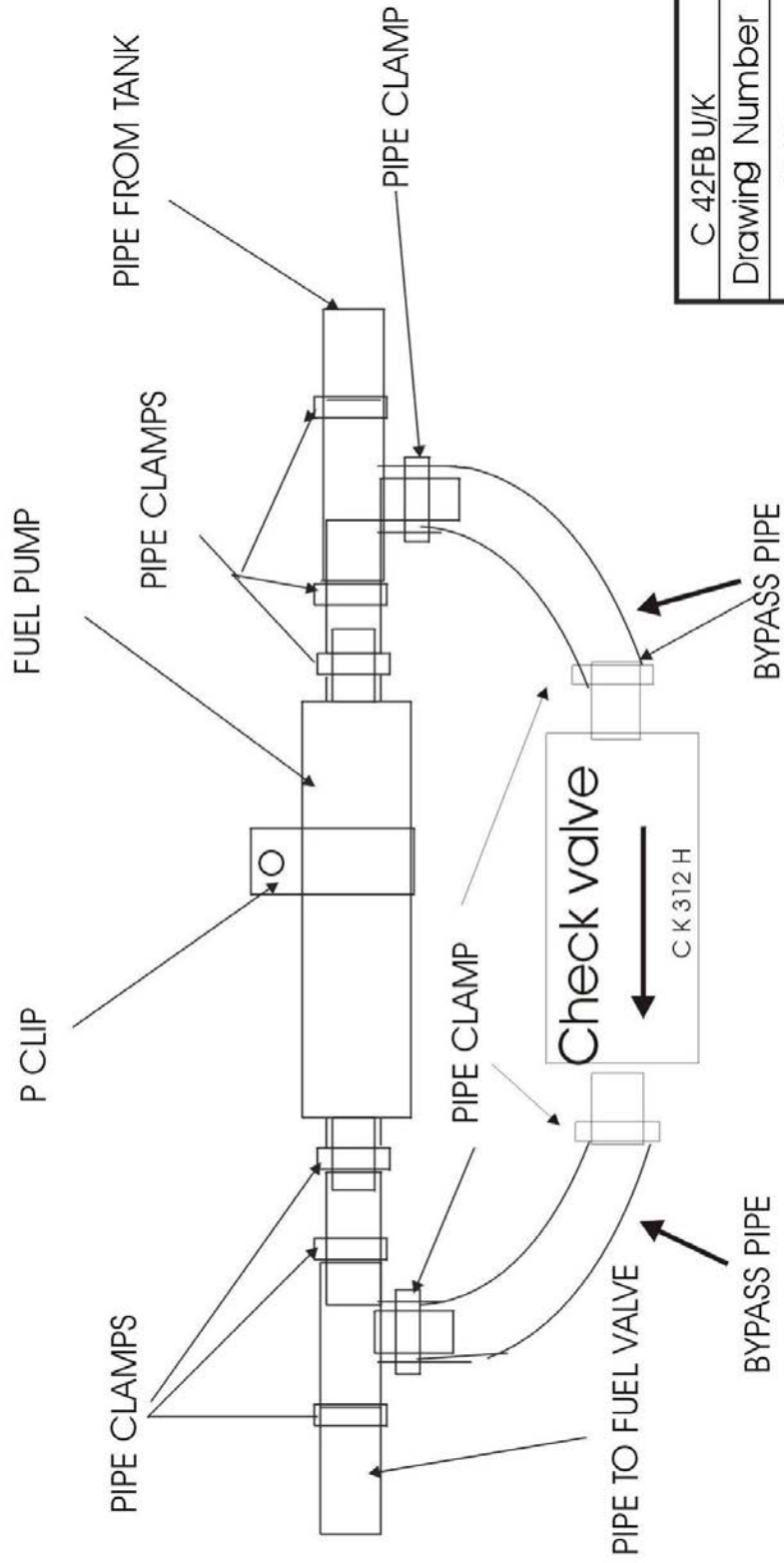
9) Your PFA Inspector will need to verify the installation and flow test[s]. A log book entry with a modification statement signed by your inspector will also be required.

## C-42FB UK FUEL FLOW CHECKS



# A 14 C 42FB U/K FUSELAGE ASSEMBLY

## ANDAIR CK 312 CHECK VALVE



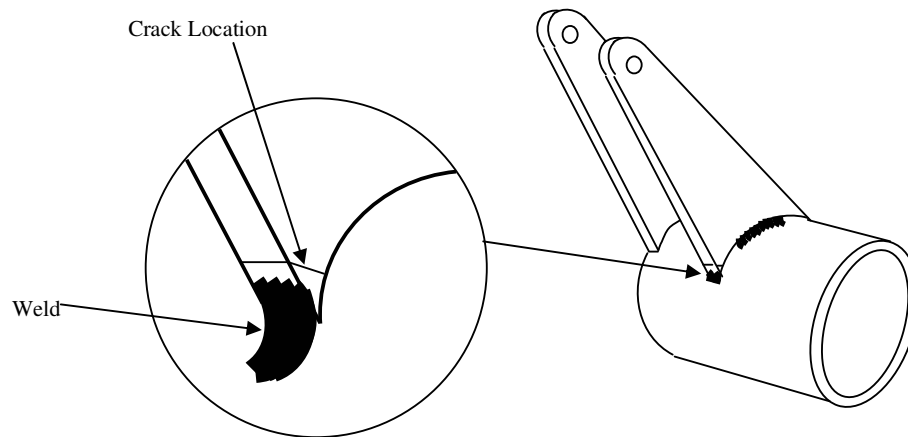
C 42FB U/K
Drawing Number
SB 15a
Issue No 1
Date 5-10-2003

# **SERVICE BULLETIN No 16 Issue 1 17-12-2003**

## **Elevator Horn Cracking – Factory built C42**

### **Classification – Mandatory**

**Nature of Defect** – A short crack has been found on one of the elevator horn plates on a C42 aircraft which had flown 59 hours. The crack appears at the welded junction of the right hand horn plate with the collar tube, at the plate's rear edge, and appears to be associated with a small weld undercut at that point. Drawing 42UKD02.06.00, Issue 26/10/2002, Elevator Horn Assembly, refers.



**Airworthiness Implications** – If the crack propagates through to the adapter tube, this places an increased parting load on the circumferential weld further forward. This in turn may crack. Although the horn consists of two plates, giving some degree of redundancy, the loss of one plate would significantly reduce the safety margin of the elevator control strength.

**Aircraft Affected** – All C42 factory built aircraft delivered up to December 17<sup>th</sup> 2003. These are serialised as follows:

0307-6543, 0307-6554, 0309-6570, 0309-6572, 0310-6574, 0311-6585

**Hours of Operation** – Not applicable.

**Rectification Action Required** – All owners must carry out the following actions:

- (a) Using a dye penetrant crack detection method, inspect the elevator horn for cracks before next flight. Inspect both arms of the horn at all welds. Pay particular attention to the front and rear of the elevator arms at the points where they meet the tube.
- (b) If a crack is found, ground the aircraft and remove the elevator horn assembly. The procedure for this is given below. Replace the part with the modified version having an improved weld pattern; the part is available from Flybuy Ultralights, Part No. 42UKD02.06.00 Issue 10/12/03.



(c) If no crack is found, it is permissible to continue to fly the aircraft for a limited period, but particular attention must be paid to this area during each pre-flight check. In any event the part must be replaced within 90 days of this bulletin by the new assembly having an improved weld pattern.

(d) Have the replacement installation inspected by a BMAA Inspector and the actions recorded in the aircraft's log book.

### **Elevator Removal Procedure**

Disconnect the trim servo wiring by parting the connector in the rear of the fuselage.  
Disconnect the elevator push rod from the elevator horn.  
Disconnect the 4 clevis pins and rings from the hinge and remove the entire elevator.  
Place the elevator upside down on a suitable surface to protect the covering.  
Support the tube properly and, using a centre punch, carefully tap out the centre pins from the 2 rivets joining the 2 halves of the elevator.  
Drill out the rivets using the 5mm drill bit supplied. Use a drill press if possible.  
Remove the 8mm bolt securing the trailing edge frame tube to the elevator leading edge.  
Separate the two halves of the elevator leading edge tube (tip out the rivet mandrels and swarf).  
Carefully move the trailing edge tube to enable the elevator horn to slide off.  
Fit the replacement elevator horn and re-position the trailing edge tube and re-fit the 8mm bolt.  
Re-join the 2 halves of the elevator and fit the rivets supplied to secure the 2 halves back together.  
Re-fit the assembled elevator ensuring the clevis pins and rings are correctly fitted.  
Re-attach the trim servo wiring connection.  
Re-attach the torque arm to the elevator horn by reinstalling the bolt and using the new nyloc nut supplied.

Position  
Chief Executive

Signature



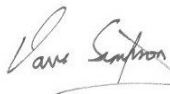
Date  
17/12/03

Production Manager



17/12/03

Engineering Design  
Consultant



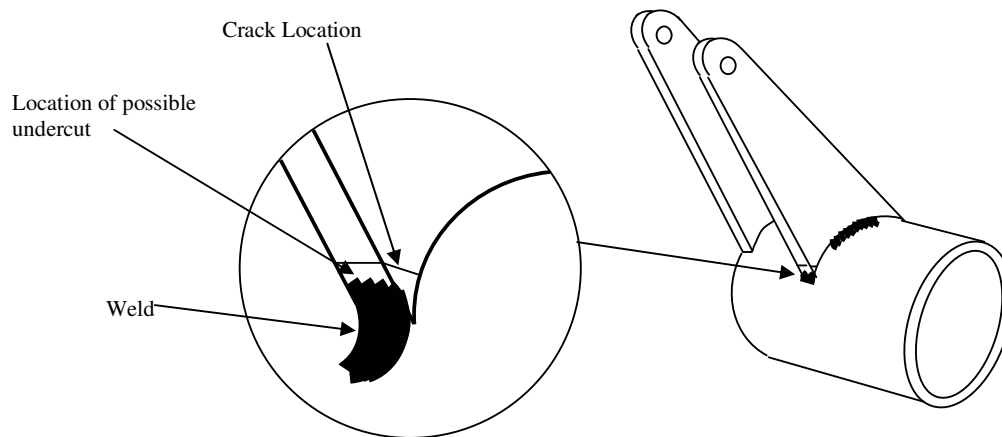
17/12/03

## **SERVICE BULLETIN No 17 Issue 3 30-04-2004**

### **Elevator Horn Cracking – Kit Built C42,**

#### **Classification – Essential**

**Nature of Defect** – A short crack has been found on one of the elevator horn plates on a C42 aircraft which had flown 59 hours. The crack appears at the welded junction of the right hand horn plate with the collar tube, at the plate's rear edge, and appears to be associated with a small weld undercut at that point. Drawing 42UKD02.06.00, Issue 26/10/2002, Elevator Horn Assembly, refers.



**Airworthiness Implications** – If the crack propagates through to the adapter tube, this places an increased parting load on the circumferential weld further forward. This in turn may crack. Although the horn consists of two plates, giving some degree of redundancy, the loss of one plate would significantly reduce the safety margin of the elevator control strength.

**Aircraft Affected** – All C42 kit aircraft delivered up to December 7<sup>th</sup> 2003. These are serialised as follows:

0102-6319, 0102-6320, 0106-6355, 0106-6356, 0106-6357, 0106-6358, 0106-6359,  
0108-6328, 0109-6407, 0109-6408, 0109-6409, 0112-6431, 0112-6436, 0112-6442,  
0112-6443, 0112-6444, 0112-6445, 0202-6453  
0202-6454, 0202-6455, 0202-6458, 0206-6488, 0207-6496, 0211-6504, 0302-6234,  
0302-6235,  
0302-6236, 0303-6550, 0309-6571, 0310-6581, 0310-6584.

**Hours of Operation** – Not applicable.

**Rectification Action Required** – All owners must carry out the following actions:

(a) Using a dye penetrant crack detection method, inspect the elevator horn for cracks before next flight. Inspect both arms of the horn at all welds. Pay particular attention to the front and rear of the elevator arms at the points where they meet the tube.

(b) If a crack is found, ground the aircraft and remove the elevator horn assembly. The procedure for this is given below. Replace the part with the modified version having an improved weld pattern; the part is available from Flybuy Ultralights, Part No. 42UKD02.06.00 Issue 10/12/03

(c) If no crack is found, it is permissible to continue to fly the aircraft for a limited period, but particular attention must be paid to this area during each pre-flight check. In any event the part must be replaced by 5<sup>th</sup> June 2004 by the new assembly having an improved weld pattern.

Note : This issue 3 of OSB 17 differs from issue 2 in that the compliance period has been extended from 90 days after 5<sup>th</sup> February to 5<sup>th</sup> June 2004.

(d) Have the inspection/replacement inspected by a PFA Inspector and the actions recorded in the aircraft's log book.

### **Elevator Removal Procedure**

1. Disconnect the trim servo wiring by parting the connector in the rear of the fuselage.
2. Disconnect the elevator push rod from the elevator horn.
3. Disconnect the 4 clevis pins and rings from the hinge and remove the entire elevator.
4. Place the elevator upside down on a suitable surface to protect the covering.
5. Support the tube properly and, using a centre punch, carefully tap out the centre mandrels from the 2 rivets joining the 2 halves of the elevator.
6. Drill out the rivets using the 5mm drill supplied. Use a drill press if possible.
7. Remove the 8mm bolt securing the trailing edge frame tube to the elevator leading edge.
8. Separate the two halves of the elevator leading edge tube (tip out the rivet mandrels and swarf).
9. Carefully move the trailing edge tube to enable the elevator horn to slide off.
10. Fit the replacement elevator horn and re-position the trailing edge tube and re-fit the 8mm bolt.
11. Re-join the 2 halves of the elevator and fit the rivets supplied to secure the 2 halves back together.
12. Re-fit the assembled elevator ensuring the clevis pins and rings are correctly fitted.
13. Re-attach the trim servo wiring connection.
14. Re-attach the torque arm to the elevator horn by reinstalling the bolt and using the new nyloc nut supplied.

Position  
Chief Executive

Signature



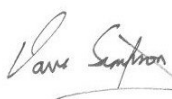
Date  
30/04/04

Production Manager



30/04/04

Engineering Design  
Consultant



30/04/04

# **SERVICE BULLETIN No 18 Issue 1 26-10-2004**

**Applicability - Ready Built & KIT**

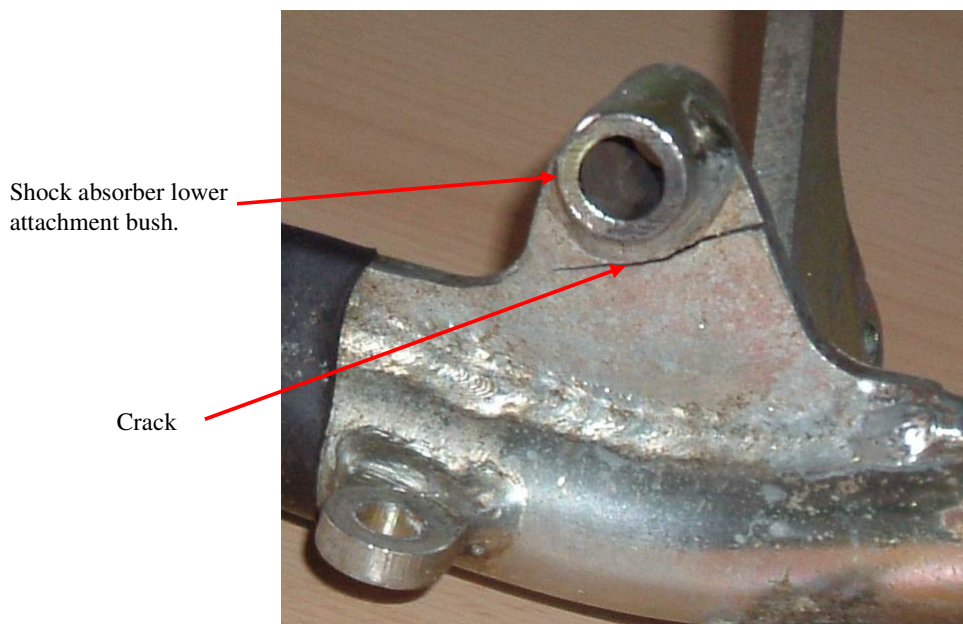
## **Stub Axle Shock Absorber Attachment Cracking – Ikarus C42**

**Classification** – Essential

**Nature of Defect** – Each steel stub axle of the C 42 (UK) is attached to its shock absorber by a small 6mm thick vertical plate, welded to the stub axle. Almost all the braking torque is reacted by the attachment of this plate to the base of the shock absorber.

Two examples of stub axles on German aircraft, (which have 5mm thick plates), have been found to have cracks near to their junctions with the shock absorber. These are shown below. The German aircraft had completed around 200 hours; number of braked landings is unknown.

Drawing 42UKA09.02.00, Issue 26/10/2003, Stub Axle Assembly, refers.



**Airworthiness Implications** – If the crack propagates to the inboard side of the lug, then collapse of the undercarriage is likely during the next braked landing.

**Aircraft Affected** – All C42 ready built and kit aircraft with total hours flown greater than 50 hours.

**Hours of Operation** – Aircraft with total hours flown greater than 50 hours.



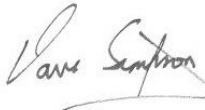
**Rectification Action Required** – All owners must carry out the following actions before further flight:

- (a) Remove the wheel spats and clean the stub axle area. Using a magnifying glass inspect the area around the lower suspension

mounting point for signs of cracking. It may be necessary to jack up the aircraft and remove the lower shock absorber mounting bolt in order to inspect the area properly. Both axles must be checked.

- (b) Have the inspection checked by a BMAA / PFA Inspector and the actions recorded in the aircraft's log book.
- (c) If a crack is found, ground the aircraft and contact Flybuy Ultralights Ltd.
- (d) If no crack is found, it is permissible to continue to fly the aircraft.

**Follow Up Action** – This inspection is now incorporated in the Pilots Operators Handbook Issue 5 (Section 11 Inspection & Maintenance) 50 hour Inspection Interval.

Position	Signature	Date
Chief Executive		29/09/04
Production Manager		29/09/04
Engineering Design Consultant		29/09/04



**Aerosport Ltd**

**9th January 2006**

**Owner's Service Bulletin - OSB 19**

**Applicability - Ready Built & Kit Built Issue 1**

**Exhaust inspection around cockpit heater jacket.  
Ikarus C42**

**Classification** – Recommended

**Nature of Defect** – Although there have been no reports of exhausts cracking in the area of the cockpit heater jacket, it is now part of the 100 hour Inspection and Annual Inspection to remove the exhaust to carry out a detailed inspection checking for signs of cracking.

**Airworthiness Implications** – If a crack in the exhaust occurs within the area of the heater jacket then carbon monoxide fumes will seep into the cockpit with a risk of poisoning the occupants.

**Aircraft Affected** – All C42 ready built and kit built aircraft with total hours flown greater than 100 flying hours.

**Hours of Operation** – Aircraft with total hours flown greater than 100 flying hours.

**Rectification Action Required** – All affected owners must carry out the following actions within 10 flying hours or 28 days:

- (a) Remove the upper and lower engine cowlings. Remove the carb drip trays and air filters to gain good access to the exhaust. Remove the exhaust and then remove the heater jacket. Using a magnifying glass inspect the exhaust for signs of cracking. If necessary use an NDT dye penetrant kit to check for cracks.
- (b) If a crack is found, ground the aircraft and contact Aerosport Ltd.
- (c) If no crack is found, it is permissible to continue to fly the aircraft. Re-attach the exhaust, carb drip trays and air filters.
- (d) Have the inspection checked by a BMAA / PFA Inspector and the actions recorded in the aircraft's log book. Any maintenance on the primary structure requires a duplicate inspection.

**Follow Up Action** – This inspection is now incorporated in the Pilots Operators Handbook Issue 9 (Microlight) and Issue 6 (VLA) in Section 11 Inspection & Maintenance 100 hour and Annual Inspection Interval.

The new Pilots Operators Handbook is available from Aerosport Ltd or <http://www.aerosportuk.com/>

Position	Signature	Date
Chief Executive		9/1/06
Production Manager		9/1/06
Engineering Design Consultant		9/1/06



**Aerosport Ltd**

**9th January 2006**

**Owner's Service Bulletin - OSB 20**

**Applicability - Ready Built & Kit Built Issue 1**

**Installation of a cockpit carbon monoxide detector  
Ikarus C42**

**Classification** – Recommended

**Nature of Defect** – Although there have been no reports of exhausts cracking in the area of the cockpit heater jacket, it is now recommended to fit a carbon monoxide detector in the cockpit.

**Airworthiness Implications** – If a crack in the exhaust occurs within the area of the heater jacket then carbon monoxide fumes will flow into the cockpit poisoning the occupants. The detector should give the occupants warning of rising levels of carbon monoxide.

**Aircraft Affected** – All C42 ready built and kit built aircraft not fitted with a carbon monoxide detector.

**Hours of Operation** – N/A.

**Rectification Action Required** – All owners must carry out the following actions within 10 flying hours or 28 days:

- (a) Carbon monoxide detectors are available from many aircraft spare suppliers. Aerosport Ltd can also supply detectors which have a long lifespan and need replacing on an annual basis, costing £15.00 inc vat and carriage.
- (b) Fit the detector on the centre panel next to the choke and heater knob, or instrument panel where it is visible to both occupants.
- (c) Have the fitment checked by a BMAA / PFA Inspector and the actions recorded in the aircraft's log book. Any maintenance on the primary structure requires a duplicate inspection.




**Follow Up Action** – The replacement of the carbon monoxide detector varies with type fitted. The detector supplied by Aerosport Ltd needs replacing annually and is incorporated in the Pilots Operators



Handbook Issue 9 (Microlight) and Issue 6 (VLA) in Section 11 Inspection & Maintenance 100 hour and Annual Inspection Interval.

The new Pilots Operators Handbook is available from Aerosport Ltd or <http://www.aerosportuk.com/>

***If owners choose to fit an alternative detector then strict adherence to the manufacturer's instructions on replacement due to expiry dates must be followed.***

Position	Signature	Date
Chief Executive		9/1/06
Production Manager		9/1/06
Engineering Design Consultant		9/1/06



**Aerosport Ltd**

**9th January 2006**

**Owner's Service Bulletin - OSB 21**

**Applicability - Ready Built & Kit Built Issue 1**

**Seat support tube rotation – Ikarus C42**

**Classification** – Recommended

**Nature of Defect** – The seat support tube can rotate under certain circumstances.

**Airworthiness Implications** – If the seat support tube rotates then because the throttle stop cable is also attached to this tube it restricts the throttle movement thus preventing full power being achieved.

**Aircraft Affected** – All C42 ready built and kit built aircraft.

**Hours of Operation** – N/A



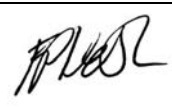
**Rectification Action Required** – All owners must carry out the following actions before further flight:

- (a) Check that the stop cable attachment rivet is facing downwards
- (b) If the tube is incorrectly orientated or it can be freely rotated then ground the aircraft and contact Aerosport Ltd for the necessary grip tape pads which cost £5.00 inc VAT and carriage.
- (c) If the tube can be freely rotated then within 10 hours or 28 days contact Aerosport Ltd for the necessary grip tape, which costs £5.00 inc vat and carriage.
- (d) If fitment of the grip tape pads is required then remove the 4 bolts attaching the seat to the cockpit floor base. Working from the right hand side of the cockpit undo the throttle stop cable and rotate the seat support tube as far as possible clockwise. Attach the grip tape to the exposed section of the seat tube to both sides. Then rotate the seat tube back to it's original position ensuring the stop cable attachment rivet is facing downwards. Re-attach the throttle stop cable and re-attach the 4 bolts securing the seat to the cockpit floor base.

- (e) Have the inspection checked by a BMAA / PFA Inspector and the actions recorded in the aircraft's log book. Any maintenance on the primary structure requires a duplicate inspection.

**Follow Up Action** – This inspection is now incorporated in the Pilots Operators Handbook Issue 9 (Microlight) or Issue 6 (VLA) in Section 11 Inspection & Maintenance 50 hour Inspection Interval.

The new Pilots Operators Handbook is available from Aerosport Ltd or <http://www.aerosportuk.com/>

Position	Signature	Date
Chief Executive		9/1/06
Production Manager		9/1/06
Engineering Design Consultant		9/1/06



**Aerosport Ltd**

**16<sup>th</sup> January 2006**

**Owner's Service Bulletin - OSB 22 Issue 1**

**Applicability - Ikarus C42 Ready Built & Kit Built**

**Incorrect length bolts fitted to cockpit tubes**

**Classification** – Recommended.

**Nature of Defect** – Possibility of aft spar root attachment bolts and top rear cockpit tube and aft relay tube attachment bolts fitted with load bearing on threaded section of bolt.

**Airworthiness Implications** – Load bearing on threaded section of bolt reduces shear load capabilities of bolt and increases wear on mounting attachment.

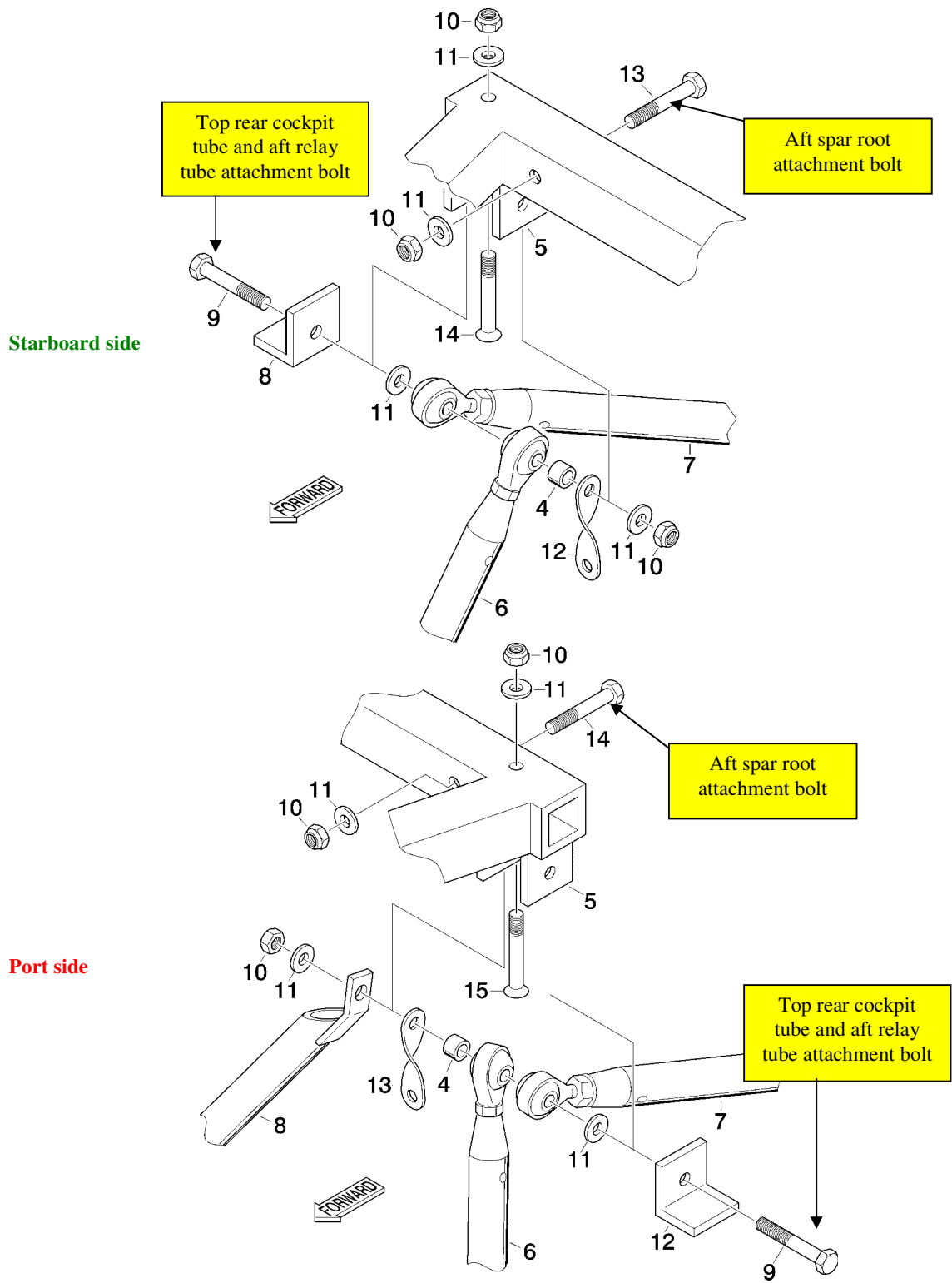
**Aircraft Affected** – All C42 ready built and kit built aircraft.

**Hours of Operation** – N/A.




**Rectification Action Required** – All owners must carry out the following actions within the next 25 hours of flying time:

- (a) View diagrams on next page which highlight affected bolts.
- (b) Remove nuts and washers (items 10 & 11) from both bolts and check that some shank is visible. If no shank is visible then the bolts must be replaced with correct length bolts.
- (c) Contact Aerosport Ltd for correct bolts and replacement nuts.
- (d) Inspect fittings for signs of wear or fretting from threaded section of bolt. Contact Aerosport Ltd if any wear is detected.
- (e) If the bolt length is acceptable then re-fit washers and fit new nyloc nuts, which are available from Aerosport Ltd. Re-tighten the nuts to a torque of 15Nm.

Have the inspection checked by your local approved Inspector and in accordance with the regulatory requirements in your country of origin. Record the actions in the aircraft's log books as applicable. Any maintenance on the primary structure requires a duplicate inspection before further flight.



**Follow Up Action – N/A**

Position	Signature	Date
Chief Executive		16/01/06
Production Manager		16/01/06
Engineering Design Consultant		16/01/06



**Aerosport Ltd**

**5th June 2006**

**Owner's Service Bulletin - OSB 23 Issue 1**

**Applicability - Ikarus C42 Ready Built & Kit Built**

**Incorrect length bolts fitted to stub axle**

**Classification** – Recommended.

**Nature of Defect** – Possibility of load bearing on threaded section of drag link tube to stub axle connecting bolt.

The bolt passes through a rose joint in the end of the drag link tube, then through an ear welded to the stub axle. Tension and compression loads on the strut result in bending loads being applied to the bolt. If such loads are applied to a threaded portion of the bolt, then bolt cracking, or fatigue failure initiated by the thread roots, are possible.

**Airworthiness Implications** – Bolt failure could result in undercarriage collapse in the event of a hard or fast landing on rough terrain.

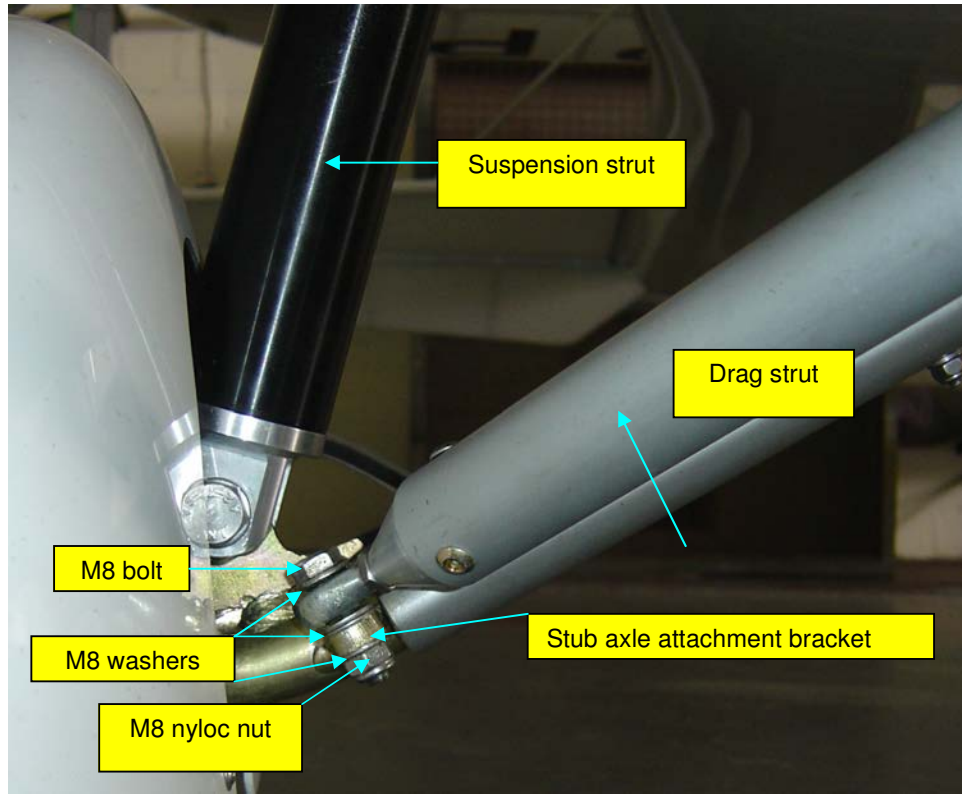
**Aircraft Affected** – All C42 ready built and kit built aircraft.

**Hours of Operation** – N/A. (No incident of failure yet reported).

**Rectification Action Required** – To improve engineering practices all owners are recommended to carry out the following actions at the next permit renewal or scheduled maintenance interval.

- (a) Contact Aerosport Ltd for correct length bolts, additional washers and replacement nyloc nuts.
- (b) View diagram on next page which highlights affected bolt.
- (c) Apply the parking brake. Working on one axle at a time, remove the nyloc nut & washer from the M8 x 40mm bolt shown. Carefully remove the bolt taking care to note the quantity of any washers between the rose joint and stub axle attachment bracket. Re-assemble with the M8 x 50mm bolt, re-fitting the washers in their original position between the rose joint and stub axle attachment bracket. Fit additional washers under the nut, as required, to prevent the nut from becoming thread bound when tightened. Torque to 15Nm.
- (d) Repeat the procedure for the other axle.

Have the replacement checked by your local approved Inspector and in accordance with the regulatory requirements in your country. Record the actions in the aircraft's log books as applicable.



**Follow Up Action – N/A**

Position	Signature	Date
Chief Executive	<i>S. D. Bauls</i>	5/06/06
Production Manager	<i>Whitby</i>	5/06/06
Engineering Design Consultant	<i>Dave Sentron</i>	5/06/06





**Aerosport Ltd**

**19th July 2007**

**Owners' Service Bulletin - OSB 25 Issue 2**

**Applicability - Ikarus C42 Ready Built & Kit Built**

**Crack in weld on wing root rib**

**Classification** – Mandatory

**Nature of Defect** – During an inspection of a C42, a 20mm long crack was discovered where the weld on the wing root rib is attached to the leading edge. The aircraft had completed around 300 hours.

**Airworthiness Implications** – Should the rib fail completely the tension of the wing covering would be lost, resulting in reduced performance of the wing and corresponding loss of roll trim.

**Aircraft Affected** – All C42 ready built and kit built aircraft.

**Hours of Operation** – 300 hours on the faulted aircraft.

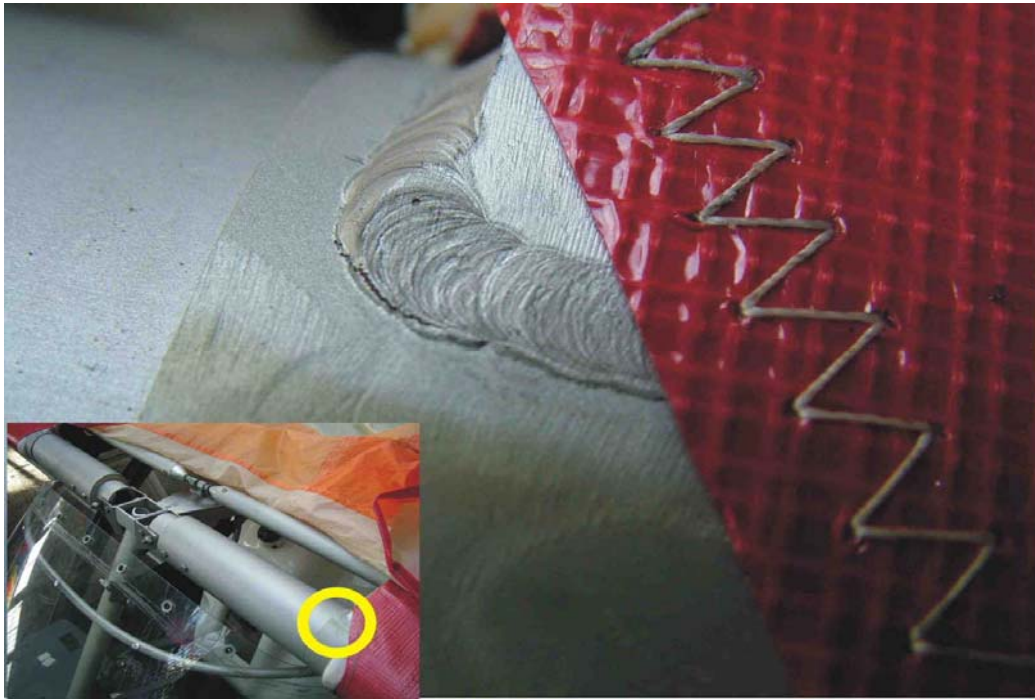
**Action Required** – To be carried out before next flight, and at each annual Permit to Fly renewal inspection.


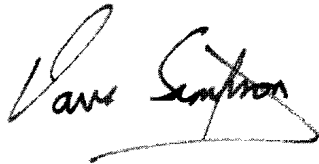
**Refer to attached photo.**

1. Remove the roof panel to expose the inboard area of the aluminium root rib where it is welded to the leading and trailing edges.
2. Carefully inspect the weld at this point for cracks. Where any uncertainty exists, use a dye penetrant for crack detection. Protect the screen and surrounding structure from dye spray.
3. If a crack exists, it will be necessary to remove the wing for disassembly. The part must be re-welded by a welder practiced and skilled in aluminium welding, or replaced by an Aerosport-supplied replacement part.
4. Enter the inspection and, if necessary the repair, in the airframe log book. This component is part of the airframe structure and the work must be inspected and signed off by a BMAA or PFA inspector as appropriate before flight.

It is not clear whether this is a manufacturing fault or fatigue failure, or a combination of both. All aircraft must be checked before the next flight, regardless of hours flown.

If a crack is found, report the fault to Aerosport with details of hours flown.



Position	Signature	Date
Chief Executive		19/07/07
Engineering Design Consultant		19/07/07



Aerosport Ltd

30/05/2008

**Owners' Service Bulletin - OSB 26 Issue 3**

**Applicability - Ikarus C42 Ready Built & Kit Built**

**Un-authorized modification to wing leading edge.**

**Classification** – Mandatory

**Nature of Defect** – As a result of a recent audit we have discovered that the Comco-Ikarus has fitted an un-approved modification to some C42 aircraft and that until the modification is approved the aircraft's Permit to Fly is invalid. The modification consists of a change in the design of the leading edge spar to reduce weight and increase strength.


**Airworthiness Implications** – There are no structural implications of the modified leading edge; it is considerably stronger than the original. However as a result of the modification being unapproved, the aircraft's Permit to Fly is invalidated.

**Aircraft Affected** – Serial numbers XXXX-6848 to XXXX-6969 and kit built PFA – 322 - 14570

**Hours of Operation** – N/A.

**Action Required** – None

**Further information:** The modification is expected to be formally cleared by 7th June 2008, whereupon the Permit to Fly will recover validity. You will be notified as soon as this occurs. You can also check the News section of the Aerosport website at <http://www.aerosportuk.com/acatalogue/news.html>

Position	Signature	Date
Chief Executive		23/05/2008
Engineering Design Consultant		23/05/2008



Aerosport Ltd

17<sup>th</sup> June 2008

**Owners' Service Bulletin - OSB 27 Issue 1**

**Applicability - Ikarus C42 Ready Built & Kit Built**

**Cracks in Engine Mount**

**Classification** – Compulsory

**Nature of Defect** – During an inspection of a C42, a 25mm long crack was discovered in the engine mount side plate starting from the front edge of the mount between the front stiffening plate and the Monobolt attaching it to the main keel tube. The aircraft had completed around 1670 hours.

On another 3 aircraft, short cracks at the top of the mount on the front and rear corners where the plate is bent horizontal and a crack from one of the rivets on the side plate to the front edge have been found.

See photos on page 2 for locations.

**Airworthiness Implications** – Should the engine mount fail engine security would be compromised.

**Aircraft Affected** – All C42 ready built and kit built aircraft.

**Hours of Operation** – The four aircraft that have been found with cracks to date have between 820 and 1670 hours.

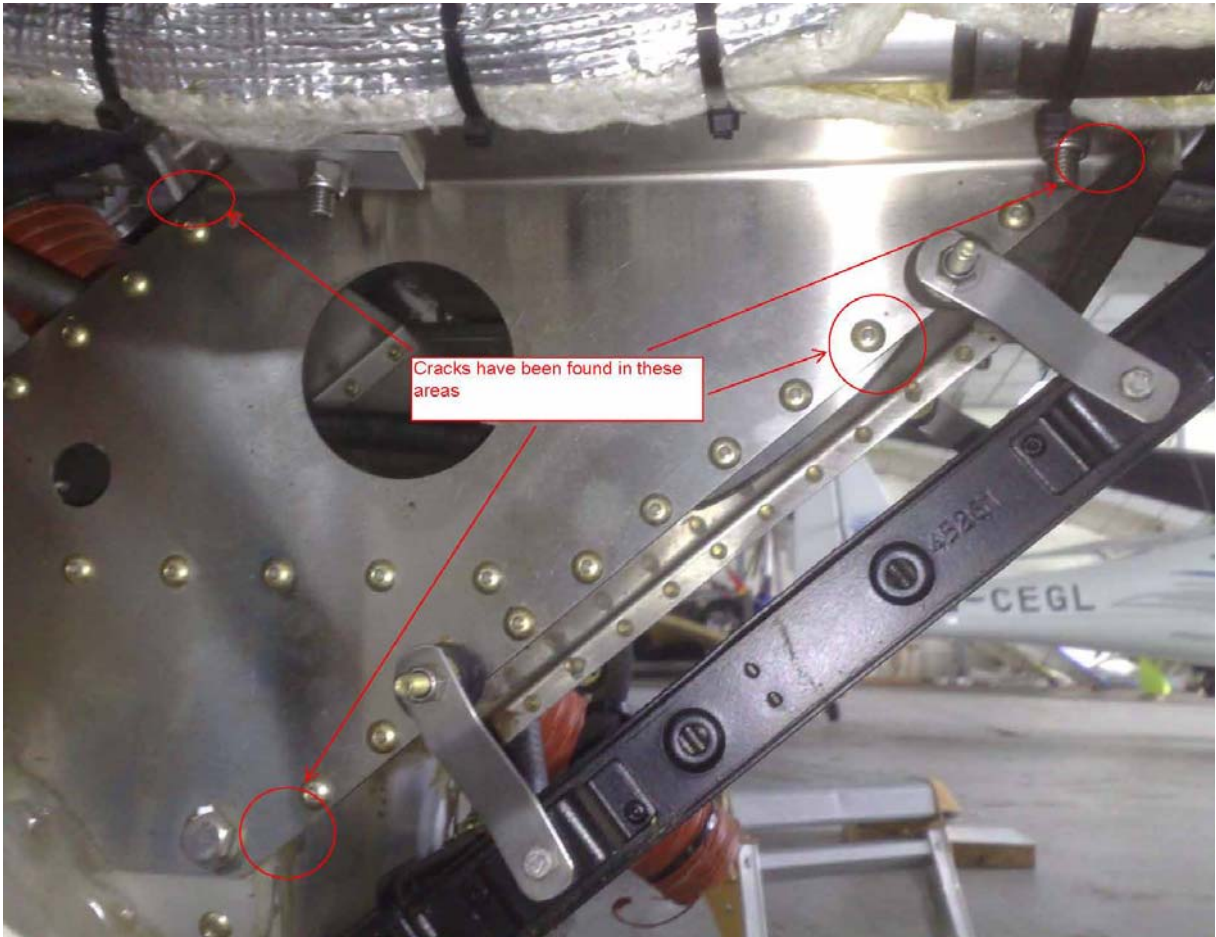
**Action Required** –

- When an aircraft reaches 500 hours flying time, carry out actions 1 to 4 below.
- For aircraft that have already reached 500 hours flying time, carry out actions 1 to 4 below before 30 June 2008
- Note that the maintenance manual will be amended to include this inspection in the 50 hour service interval.

***Refer to photographs below.***

1. Remove the top and bottom engine cowling so both sides of the engine mount can be seen.
2. Carefully inspect both sides of the mount for any cracks, especially in the areas highlighted in the photograph on page 2 with all the rivets near the edge of the side plates being checked. Pay particular attention to the lower part of the mount in the area depicted in the lowest red circle on the photograph. Where any uncertainty exists, use a dye penetrant for crack detection. Protect the surrounding structure from any dye spray.
3. Following the initial inspection, report the number of aircraft hours and whether any cracks were found to Aerosport. If any cracks were found ground the aircraft and contact Aerosport with details of the cracks for advice on corrective action. For subsequent inspections if any cracks are found ground the aircraft and contact Aerosport for advice on corrective action.
4. The inspections must be carried out by a competent person and entered and signed in the airframe log book. If you have any doubts on your abilities to do this inspection, then we suggest you seek advice from your BMAA or LAA inspector as appropriate.

The cause of the cracking is unproven. However the lower cracks are probably exacerbated by frequent and/or heavy nose impact, or fast taxiing over rough surfaces. Pilots should be aware that nose wheel loads (on any aircraft) should be minimised whenever possible.



Position	Signature	Date
Chief Executive	<i>S. De Bauls</i>	17 <sup>th</sup> June 2008
Engineering Design Consultant	<i>Paul Symon</i>	17 <sup>th</sup> June 2008



**Pioneer Aviation UK Ltd**

**25th May 2010**

## **Pioneer Service Bulletin - C42 SB 28 Issue 1**

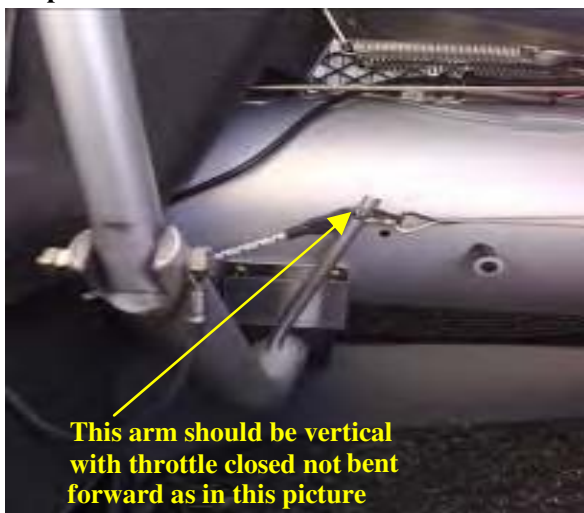
### **Applicability - Ikarus C42 Ready Built & Kit Built**

#### **Throttle Arm clevis pin catching on centre console side panel**

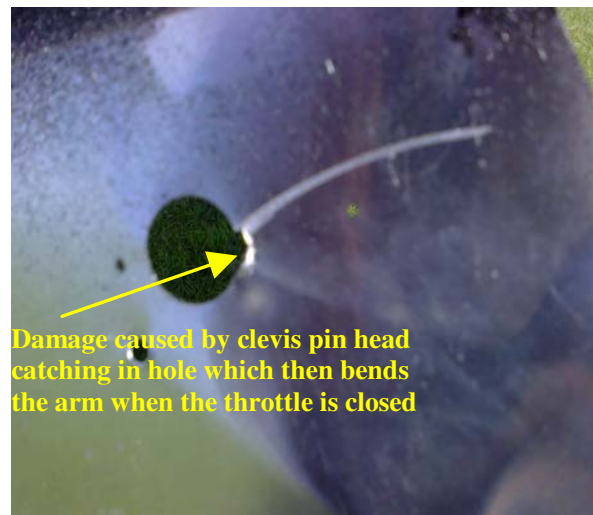
**Classification** – Recommended

**Nature of Defect** – During a training flight a student reported difficulty in closing the throttle. The instructor also found the throttle stiff to close and using greater force than usual in an attempt free the throttle, the arm from the throttle cross tube became bent leaving the engine in the full power setting, even though the throttle lever was now in the closed position. This was caused by the head of the clevis pin on the end of the throttle arm catching on the edge of a hole in the side panel at the full throttle position. Subsequent investigation has shown that if the occupant of the right seat inadvertently pushes on the rearo quvpart of the right hand side panel with their foot or lower leg, then this interference condition with the throttle arm could be reproduced.

**See photos below.**



**Picture 1**



**Picture 2**

**Airworthiness Implications** – If the throttle is stuck on full, then the only way to land the aircraft would be to stop the engine by switching off the magnetos, turning the fuel off and then to carry out a forced landing.

**Aircraft Affected** – All C42 ready built and kit built aircraft.

**Hours of Operation** - Not applicable

#### **Recommended Action :**

Preferably before the next flight or if not as soon as practical, carry out an intial inspection to see if the throttle arm has been touching the side panel - See picture 2 above. If there is any sign of contact then a longer screwed in spacer must be fitted so that an adequate clearance is produced between the panel and throttle arm. Even if no contact of the arm on the side panel is apparent, it is still recommended to carry out this modification.

**To do this proceed as follows:**

1. Remove the right (passenger) side panel and the rearmost of the 2 plastic spacers from the main keel tube to the side panel and replace with a 30,0mm long threaded spacer. This involves fitting a M4 rivnut (see fig 1) into the same hole in main tube that the plastic spacer was removed from. The rivnut ideally needs to be fitted with a special rivnut tool or it can be fitted by temporarily screwing in a M4 bolt with a nut and greased washer attached into the rivnut and tightening the nut against the flange of the rivnut with the washer in between whilst holding the bolt to expand the rivnut to hold it secure into the main tube of the aircraft (see fig 2).

A spacer (see fig 3) is then screwed into the rivnut and the side panel refitted in place and retained by a M4x6 flange head screw into the top of the spacer through the existing hole in the panel. See pictures below.

Please contact Pioneer for a kit of the necessary parts or to arrange fitting.

2. This spacer replacement must be carried out by a competent person. If you have any doubts on your abilities to do this, then we suggest you seek advice from your inspector. We recommend that this modification is signed off in the airframe logbook by a suitably qualified BMAA or LAA inspector as appropriate.

**Parts Required:**

M4 Rivnut



Fig 1

M4 Rivnut after fitting

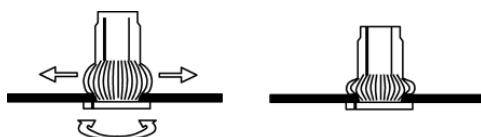


Fig 2

M4 x 30,0mm spacer



Fig 3



Ur ceqt'uetgy gf 'lpvq'j g'tkxpw'

Hpkuj gf 'ukf g'r cpgri'pqy 'tgck'pgf 'd{' 'c'O 6'uetgy

Position	Signature	Date
Chief Executive	<i>Joak A. Gwacumb</i>	29.05.10
Design Engineer	<i>Paul Sinton</i>	29.05.10