



BMAA Defect Alert #0054 - Red Aviation SB030 - Neuform Propeller Hub Cracking

UPDATE: 15/07/2016

This service bulletin is now the subject of an EMPD (2016-006-E) please find the direct link below:

<http://publicapps.caa.co.uk/docs/33/EmergencyMPD2016006E.pdf>

Dated: 25/05/2016

Red Aviation has issued a Service Bulletin for all Ikarus C42 aircraft.

SB030 – Neuform Propeller Hub Cracking

Please see the next pages for the SB in full.

If you have any questions feel free to get in touch.

Kind regards,
Rob

Rob Mott
Chief Inspector
British Microlight Aircraft Association
01869 336005
[*robert@bmaa.org*](mailto:robert@bmaa.org)



Hangar 6, Halfpenny Green Airport, Bobbington, Stourbridge, West Mids. DY7 5DY

Tel: +44 (0)1384 221600 or 07790 045959

www.red-aviation.com

email malcolm@red-aviation.com

SERVICE BULLETIN

5th May 2016

Service Bulletin – SB 30 Issue 1

Applicability – Ikarus C42 fitted with Neuform Propeller

Inspection of propeller hub for cracking

Classification: Essential

Nature of Defect

We have been made aware of cracks starting from the centre hole in the hub on some Neuform propellers.

As can be seen from the pictures 1 to 3 below, the cracking is quite extensive and the two principal cracks have gone nearly the complete radius of the outer hub. Some cracking was starting in the inner hub (not shown) but this was not so extensive. From the corrosion around these cracks it appears that they have been there for some time. On picture 4 however, the crack is much less noticeable and not really visible with a naked eye, so crack detection fluid has been used to highlight the crack.

At this moment we do not know the cause of the cracking, but we do know of several propellers that have done over 3,000 hours and one example with 6,500 hours with no problem. It also seems to be only occurring in the UK as the problem has not been reported to Comco-Ikarus on any C42's in Europe, where there are many more flying with Neuform propellers.



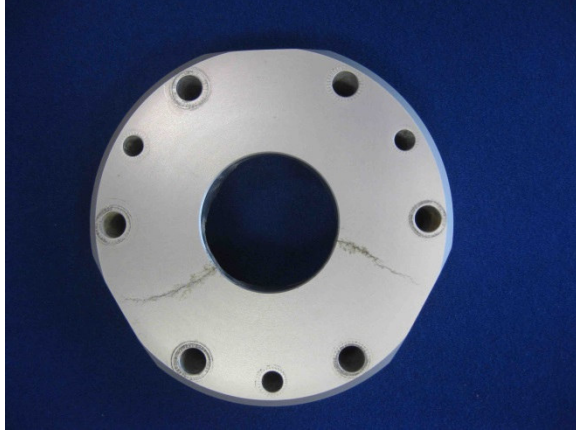
Red Aviation

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Picture 1



Picture 2



Picture 3



Picture 4



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Airworthiness Implications

If such cracks are allowed to propagate the structural integrity of the propeller will be compromised, possibly resulting in the loss of one or more blades with the risk of further consequences.

Aircraft Affected

C42 aircraft fitted with Neuform propellers.

Hours of Operation

So far 3 have been found with hours ranging from 400 to 1050.

Rectification Action Required

(a) Inspection

We recommend that before your next flight you remove the spinner and take a very close look at the front part of the hub assembly for any sign of cracking. If there is any doubt we suggest the use of crack detection fluid.

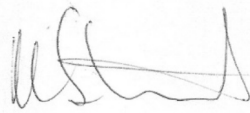

(b) Actions

If any cracks are found **DO NOT FLY** the aircraft.

Please photograph the hub and send to malcolm@red-aviation.com with the total hours of the propeller and whether fitted to a 100hp or 80hp engine.

We will advise upon further actions.

Approved by:

Position	Signature	Date
Technical Manager		05/05/2016
Engineering Design Consultant		05/05/2016