



**** MANDATORY ****

Service Letter No: SL-200C/400C-070214

DATE: July 8, 2014

TO: All owners and / or operators of affected 200C and 400C aerobatic (counterweighted) propellers.

SUBJECT: Inner ferrule to outer ferrule screw modification per 2003 Service Letter SL-200C/400C-0002 (attached for reference).

MODELS AFFECTED: Early 200C and 400C propellers subject to 2003 Service Letter SL-200C/400C-0002; 200C propellers serial numbers 200C-238 and lower and 400C propellers serial numbers 400C-236 and lower.

This service letter does not apply to propellers whose blade ferrules do not have the inner ferrule to outer ferrule flathead screws installed.

Propellers include those that were field serviced to comply with the service letter specification as well as those manufactured or factory serviced to the service letter specification.

REASON: Per Service Letter 200C/400C-0002 the additional specified #10-32 tap holes may be drilled too deep, which may compromise the blade outer ferrule integrity and lead to fracturing and possible loss of blade retention.

TIMELINE: IMMEDIATE inspections are required for propellers known to be flown at engine speeds exceeding 2,850 RPM.

Inspections are required as soon as is practical for 200C / 400C propellers known to be flown at engine speeds greater than the Whirl Wind specified maximum 2,700 RPM but less than 2,850 RPM.

200C / 400C propellers operated at or below the Whirl Wind specified maximum 2,700 RPM should strictly observe the standard 250 operating hours or annual tear down inspection interval, whichever comes first.



**DESCRIPTION OF
REQUIRED
CORRECTIVE
ACTION:**

A tear down inspection must be performed by Whirl Wind or an approved propeller service center that has the ability to perform laboratory grade non-destructive testing (NDT) of the aluminum outer blade ferrule to inspect for cracks. Such tests include but are not limited to ultrasound and application of eddy current.

Through testing and / or removal of the #10-32 inner ferrule screws (those dictated by service letter SL-200C/400C-0002) the drill depth of the screw holes must be less than 0.625" from the surface of the inner ferrule to the drill point. Blades with holes exceeding this maximum allowable depth must be taken out of service.

Blade ferrules that have screw holes within the maximum depth of 0.625" and are NDT tested and verified to be structurally sound (no evidence of cracks) may be returned to service, continuing to follow the aerobatic propeller 250 hour or annual tear down inspection service interval, whichever comes first.

*** Operating any Whirl Wind propeller beyond the published maximum operating speed of 2,700 RPM is not permissible and the operator assumes all risk associated with such activity ***

MANDATORY SERVICE LETTER

SL-200C/400C-0002

TO: ALL OWNERS / OPERATORS OF AFFECTED PROPELLERS
SUBJECT: MANDATORY BLADE FERRULE ROOT MODIFICATION
DATE: FEBRUARY 4, 2003

MODELS AFFECTED: All Whirl Wind 200C Series and 400C Series aerobic propellers manufactured prior to the date of this letter.

REASON: Blade root inner ferrule may slip resulting in loss of pitch control in affected propeller models.

TIMELINE: This modification must be performed in the next 25 hours or 6 months, whichever occurs first.

DESCRIPTION OF MODIFICATION:

1. A blade ferrule root modification must be performed for all affected propeller models. This modification will require the affected propeller models to be disassembled for the removal of the blades. The blade modification requires three #10 fasteners to be installed at the ferrule root of each blade. After the blade modification is complete, the propeller can then be reassembled and returned to regular service.
2. This modification can be performed by the Whirl Wind Propellers factory. Alternatively, a modification kit will be provided to a qualified propeller service center to perform this modification per Whirl Wind drawing upon approval by Whirl Wind.

P/N: WWA-200-002
 200C 0.50" DIA. PIN BASE
 ** PER SL-200C-051805
 P/N: WWA-400-003
 400C 0.44" DIA. PIN BASE

COUNTER SINK FOR FLUSH HEAD
 INSTALL (3) #10-32 X 1/2" LG.
 FLAT HEAD MACHINE SCREW

3.980 DIA.
 BOLT CIRCLE

45° TYP

90°

.500
 MIN 0.625 ^{-0.000}/_{+0.015}

#21 DRILL (0.159 DIA) DRILL
 #10-32 UNF ** BOTTOM ** TAP

200C / 400C SERIES PROPELLER SL-200C-400C-0002 FASTENER INSTRUCTIONS

WHIRL WIND AVIATION

DRAWN BY: J.S.
 REVISION: A

CHECKED BY: B.K. & J.R.
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