



**** MANDATORY ****

Service Letter No: SL-200C/400C-013015

DATE: January 30, 2015

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

SUBJECT: Actuating pin base to outer ferrule attachment bolt hole depth.

MODELS AFFECTED: Model 200C; all propellers with blade serial numbers 200C-385 and lower
Model 400C; all propellers with blade serial numbers 400C-226 and lower

REASON: The actuating pin base mounting holes could vary in depth. In some cases inconsistent hole depths could compromise the integrity of the blade outer ferrule which can lead to premature material fatigue and possible failure of the ferrule, which can in turn lead to the loss of blade retention.

BACKGROUND: To date Whirl Wind has put nearly four hundred (400) 200C / 400C blades into service and there have been only two (2) that have experienced ferrule degradation. Both propellers were subject to unusual / extenuating circumstances; the first was a high-time 400C with an extensive history of being regularly operated at engine speeds greater than 2,700 RPM, the second was a 200C on a highly modified experimental IO-360 with known high engine torsional vibration (moderate torsional vibration is a known phenomenon with four cylinder aircraft engines). After evaluating these two blades Whirl Wind extended its engineering study beyond these two specific propellers and evaluated the current design, concluding that a thorough review of in-service propellers is warranted.

TIMELINE: **IMMEDIATE inspections are required for all affected propellers known to be regularly flown at engine speeds greater than 2,700 RPM.**

IMMEDIATE inspections are required for all 200C operating on highly modified experimental four cylinder engines.

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



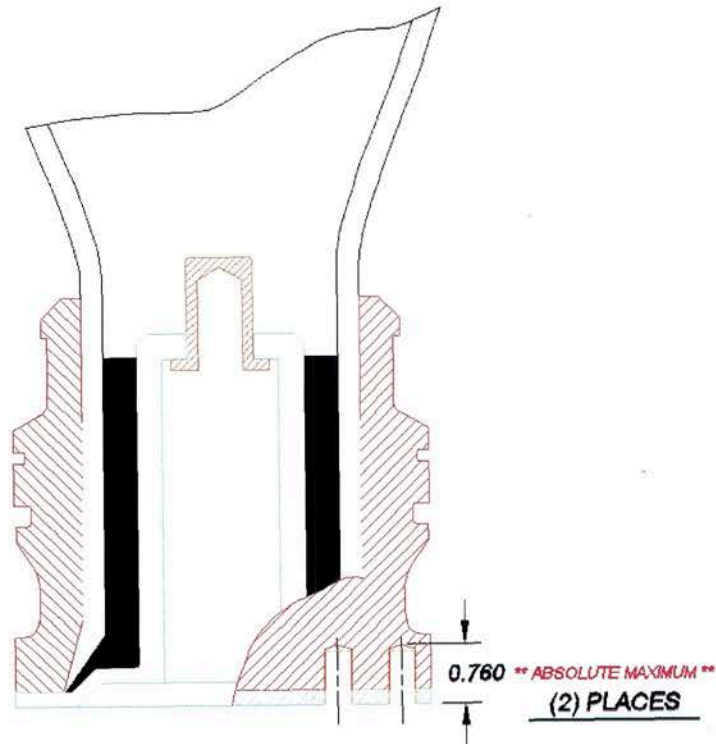
**DESCRIPTION OF
REQUIRED
CORRECTIVE
ACTION:**

A tear down inspection must be performed by Whirl Wind or a Whirl Wind approved propeller service center.

Through testing and / or removal of the 5/16-24 actuating pin base mounting screws the drill depth of the screw holes must be found **not to exceed 0.760"** deep from the surface of the inner ferrule to the drill point (see figure 1 below). Blades with holes exceeding this maximum allowable depth must be taken out of service immediately.

Blade ferrules that have actuating pin base holes with maximum depths of 0.760" and less and are NDT tested and verified to be structurally sound (no evidence of cracks) may be returned to service, continuing to follow the 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 ***



**200C / 400C SERIES PROP BLADE
ACTUATING PIN BASE MOUNTING HOLE**
WHIRL WIND AVIATION

Figure 1

In the event blades must be taken out of service to comply with this service letter, Whirl Wind has established a replacement blade and service price discount program based on the propeller blades' age and time in service.