

# SERVICE BULLETIN

STINSON DIVISION  
CONSOLIDATED VULTEE AIRCRAFT CORPORATION  
WAYNE, MICHIGAN

TITLE: Modification of Control Wheel Installation BULLETIN NO. 249

MODELS AFFECTED: 108 (Voyager and Flying Station Wagon) Serial 108-743 through 108-2847

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DATE: June 3, 1947

Gentlemen:

In cooperation with the C.A.A. program of increasing the safety factor of cabin interiors in the event of crash, we have modified the attachment of the control wheel to its shaft. Although the incorporation of this refinement is at the plane owner's discretion, we recommend its adoption on planes within the serial numbers listed above.

Remove the control wheels and shafts from the airplane by taking out the bolts through the universal joint on the forward end of the shaft. To prevent the necessity of readjusting the control cables to properly align the control wheels for the aileron neutral position, it is recommended that the wheels be tagged "right" and "left". It is further recommended that each wheel and shaft be marked so as to permit re-installing the wheel on the shaft at the same angle of rotation. If this is not done it will be necessary to completely rerig the aileron control system.

Remove plastic hub cap and unbolt wheel from shaft. Cut off 1.40" from the end of the shaft which contains the plug. The plug will no longer be required so it will not be necessary that it be removed before proceeding with the cutting operation.

Drill a  $\begin{matrix} 0.250" \\ 0.254" \end{matrix}$  hole horizontally through the wheel hub at a distance of 0.65" from the face of the hub. Insert shaft in nub, paying particular attention to index marks, and match drill shaft by drilling in from each side of the hole in the hub. Secure the shaft in the hub with a Type 1 Groov-Pin.

Reinstall control wheels and shafts in the airplane. If wheels are not straight in the neutral aileron position it is because either they have been interchanged right with left, or the wheels were not properly matched with their respective shafts as noted above. Wheels may be straightened only by the simultaneous adjustment of all aileron cable turn-buckles. (Refer to General Service Manual.) Correct tension for aileron control cable is 28 to 33 pounds.

PARTS REQUIRED:

2 - Type 1 Groov-Pin 1/4 Dia. x 1.50" Long

The special Groov-Pins may be obtained without charge from our Service Department if ordered within 90 days from bulletin issuance date.

Yours very truly,

STINSON DIVISION  
Consolidated Vultee Aircraft Corporation  
George Earl Martin  
Service Manager