



REPUBLIC AVIATION CORPORATION
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SERVICE DEPARTMENT

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REINFORCEMENT OF AFT CABIN SKINS

The aft cabin skins are subjected to stresses due to engine vibration and propeller air buffeting which has resulted in cracking of these skins and stiffeners. On Seabees previous to Serial No. 278, these skins were reinforced with Z-section vertical stiffeners which proved to be too light. New hat-section stiffeners were incorporated in production on Serial No. 278 and subsequent which stiffened the skins appreciably. However, the tie-in to the angles to the hull proved insufficient, resulting in cracking out of the lower ends of the stiffeners as well as cracking of the aft cabin skins just above the angles. As a result, a new reinforcing gusset has been developed to eliminate these difficulties.

For airplanes previous to Serial No. 278, a kit is available consisting of all necessary parts and installation instructions for the new type hat-section stiffeners and gussets. The list price is \$8.15 per kit; however, all airplanes in this category are subject to warranty consideration on this item provided the failures were not caused by an accident, mishandling or any cause other than normal vibration.

For Serial No. 278 and subsequent, a sketch provided herewith shows the dimensions of the simple gusset which can be made up from local stock and shows the manner of installation. Inasmuch as the hat-section stiffeners are not joggled for these gussets which must be inserted between the stiffeners and skins, it will be necessary to add tapered shims immediately above the gussets in order to prevent creasing the aft cabin skins. Each shim should be held with at least two rivets to prevent its rotation out of place.

W.H. Ehman
Service Manager

