



**REPUBLIC AVIATION CORPORATION
FARMINGDALE, LONG ISLAND, NEW YORK
SERVICE DEPARTMENT**

August 26, 1947

MANDATORY CHANGE

SERVICE BULLETIN NO. 18

INSTALLATION OF ANTI-SWIRL VANES IN CARBURETOR AIR DUCT

Reason for Change: To prevent excessive R.P.M. drop off when carburetor heat is used. The addition of the anti-swirl vanes straightens the flow of air to the carburetor thereby preventing an excessively rich mixture when carburetor heat is used. This is a Mandatory Change and should be incorporated before icing conditions are encountered.

Airplanes Affected: Republic Serial Nos. 5 through 1035 inclusive except the following which have already been modified at the factory: 767, 915, 948, 949, 957, 959 through 999 inclusive, 1004 through 1010 inclusive, 1014, 1019 through 1025 inclusive. Serial No. 1036 and up have been modified at the factory prior to delivery.

Description of Change: This change involves removing the carburetor, installing the anti-swirl vanes in the air duct below the carburetor and reinstalling the carburetor.

1. Open top engine cowl.
2. Disconnect upper and lower carburetor flange studs, fuel lines and mixture and throttle controls at carburetor.
3. Since upper studs are threaded into the intake manifold, it is necessary to hoist up aft end of engine, which will withdraw these studs from the upper carburetor flange and permit removal of carburetor. Therefore, hoist aft end of engine to clear carburetor flange studs and remove carburetor. If a hoist is not available, 2 x 4 wood planking and an automobile jack can be used to jack up the rear of the engine.
4. Locate anti-swirl vanes as indicated in Figure 1, drill #10 (.193) holes through air intake duct to match holes in vanes and attach vanes with AN3-3A bolts, AN960-10L washers and AN365-1032 nuts provided. Washers and nuts are to be on the outside of the air intake duct.

NOTE: Be sure to install vane with shorter leg in proper location.

5. Clean out all drill chips from the air intake duct. Check operation of heat control valve.
6. Reinstall carburetor and attach fuel lines and mixture and throttle controls at carburetor.
7. Run up engine and operate carburetor heat control. Under normal conditions the drop off should not exceed 275 R.P.M. with heat control in any position.

Parts Required: Parts may be obtained through your local dealer or distributor at no charge.

Service Bulletin Kit No. 18 consists of the following:

<u>Quantity</u>	<u>Part Number</u>	<u>Part Name</u>
2	17P68014-18	Angle
1	17P68014-20	Angle
6	AN3-3A	Bolts
6	AN960-10L	Washer
6	AN365-1032	Nuts

Time Required: Approximately 4 man-hours are required to accomplish this change.

W. H. Ehmann
Service Manager

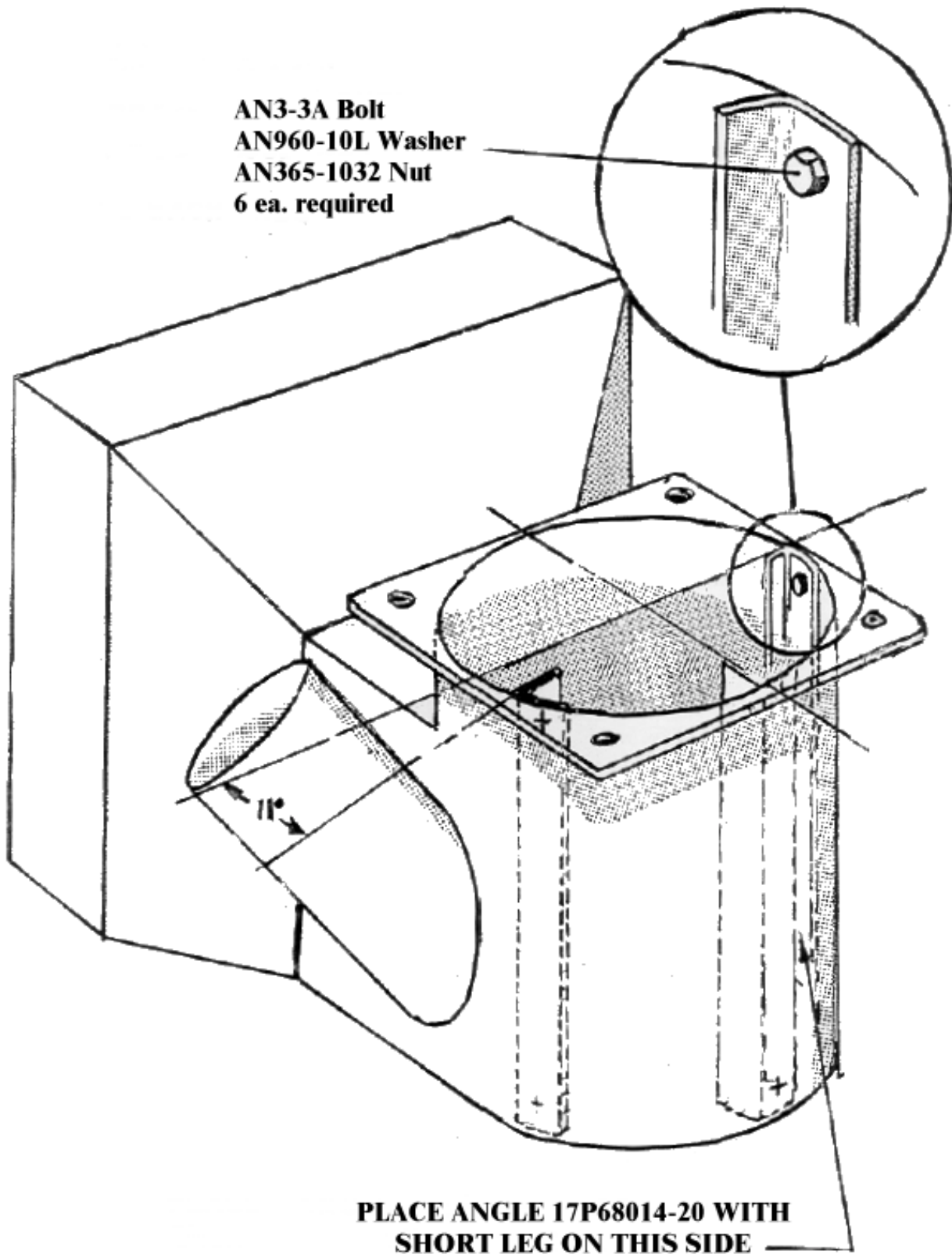


Figure 1