



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

MARCH 10, 1947

MANDATORY CHANGE

SERVICE BULLETIN NO. 11

**INSPECTION AND REINFORCEMENT OF MIXTURE CONTROL
SUPPORT FLANGE ON AIR FILTER HOUSING**

Reason for Change:

Due to three present failures the following modification is being made to prevent the mixture control support flange on air filter housing from breaking loose due to vibration and causing mixture control to go into idle cut off. Such a failure in flight could cause a forced landing.

Airplanes Affected:

Republic Serial Nos. 5 through 303, 305 through 367, 369 through 398, 400 through 445, 448 and 449, 451 through 454, 456 through 459, 461 through 466, 469 and 470, 472, 474, 479, and 482. Serial Nos. 304, 368, 399, 446, 447, 450, 455, 460, 467, 468, 471, 473, 475, 476, 477, 478, 480, 481, 483 and up have already had this change accomplished in production.

Description of Inspection and Change:

The flange on the air filter housing which holds the mixture control support should be inspected immediately for any evidence of cracking. If cracked, it should be inspected before every flight until the following change is accomplished. This change should be accomplished as soon as possible and not later than the next 25 hour inspection; it involves adding a reinforcing piece to the flange and shall be accomplished as follows:

1. Remove right hand side cowl if desired for greater accessibility.
2. Remove fuel strainer blast tube.
3. Detach mixture control from support at filter duct.
4. Remove air filter unit.
5. Drill out the two rivets holding the channel support to flange on side of air filter housing.
6. Make up a reinforcing piece from .064 aluminum alloy sheet approximately as shown on Fig. 1. Attach this reinforcing piece to the air filter housing with four No. 8 screws or bolts and self-locking nuts. Be sure that all chips resulting from drilling are cleaned out of the air filter housing.

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7. Attach mixture control support to reinforcement and flange on air filter housing with No. 6 flush screws and self-locking nuts.
8. Reassemble mixture control to support, replace air filter unit, blast tube and cowling. Make suitable entry in log book.
9. Check mixture control for proper travel.

Cost and Time Required:

Approximately 3 man-hours are required to accomplish this change. This change is to be incorporated on airplanes still within the warranty period at no charge to the owners.

Parts Required:

<u>Quantity</u>	<u>Part Number</u>	<u>Part Description</u>
1 pc.	.064 Alum. Alloy	2 x 3 1/2
2 pc.	AN510-6-8	Flat Head Screw
4 pcs.	AN526-832-8	Screw
2 pcs.	AN365-640	Self-Locking Nut
4 pcs.	AN365-832	Self-Locking Nut
2 pcs.	AN960-6	Washer
4 pcs.	AN960-8	Washer

W. H. Ehmann
Service Manager

If you have sold your airplane, please forward this Bulletin to the present owner.

