Title  VACUUM SYSTEM - SUPER VENTURI DRIVEN

MODELS AFFECTED  172

SERIALS AFFECTED  26000 & on

NOTE
This installation is used in conjunction with AK172-80 only.

PARTS LIST:

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<th>QUANTITY</th>
<th>PART NUMBER</th>
<th>NOMENCLATURE</th>
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<td>4</td>
<td>MS20365B1032C</td>
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<td>2</td>
<td>IKI-4-6</td>
<td>Elbow</td>
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<td>2</td>
<td>AN844-8</td>
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<td>Clamp</td>
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<td>AN515-10R10</td>
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<td>1</td>
<td>0511473-1</td>
<td>Stiffener</td>
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<tr>
<td>1</td>
<td>0813619-3</td>
<td>Relief Valve</td>
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<td>0511318-1</td>
<td>Venturi Tube</td>
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<td>1</td>
<td>S-1431-8-2,38</td>
<td>Hose</td>
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CHANGE IN WEIGHT AND BALANCE:

MODEL  172

WEIGHT INCREASE  3.06 pounds

ARM  12.0 inches

RESULTANT MOMENT  37 pound-inches

INDEX  0.037

1. DESCRIPTION OF INSTALLATION.

Installation of this Accessory Kit consists of:

a. Installing a stiffener plate and a super venturi tube on the right side of the fuselage between the firewall and cabin door.

b. Installing a relief valve and interconnecting lines between the super venturi tube and gyros.

2. INSTALLATION INSTRUCTIONS.

a. (Refer to figure 1.) Install venturi tube (7) as follows:

   (1) Remove the right forward upholstery side panel. If desired, the glove compartment may also be removed to obtain more working space.
(2) Remove the front seats.

(3) (Refer to figure 2.) On aircraft serials 2800 thru 47746 layout and drill holes (3) & (5). Cut elongated hole (4) on aircraft 47746 & on, use template provided in figure to locate all holes required.

NOTE

Remove any rivets which would be covered by venturi tube.

(4) (Refer to figure 1.) Attach venturi tube with screws (8) and nuts (9).

(5) Screw elbow (3) into the venturi tube.

(6) Attach hose (3) to elbow (5).

(7) Install two elbows (10) in relief valve (2). Attach the relief valve and assembled fittings to hose (3) and hose (1).

3. RELIEF VALVE ADJUSTMENT.

a. The suction gage should indicate a maximum of 4.5 inches of mercury at normal cruising speed, and a minimum of 3.5 inches of mercury at best rate-of-climb speed.

b. If the suction gage reading is not within the specified limits, loosen the locknut on the adjusting screw of relief valve (5, figure 1) and adjust the screw as necessary to obtain the correct readings.

c. When the relief valve is properly adjusted, tighten and safety the locknut.

d. If adjustment of the relief valve fails to produce the required suction gage reading, check the installation of all lines, hoses, and fittings. Check the venturi tubes for missing plugs and for obstructions.

e. After the relief valve has been adjusted, install the upholstery side panel.

NOTE

Change the filters in the gyro instruments at a maximum of each 100 hours flight time. These filters are accessible after removing the air inlet covers from the backs of the instruments.
Figure 1. Venturi Installation

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CANCELLED

FIREWALL STATION 0.0

1. 051300-57 ANGLE (REF)

2. STIFFENER PLATE (REF)

STIFFENER LOCATION:
SERIALS 28000 THRU 47749

3. NO. 10 (.193) HOLE 4 REQD

4. ELONGATED HOLE 1 REQD

5. NO. 30 (.128) HOLE 4 REQD

6. ANGLE (REF) (SEE FIG. 3)

5/8" DIA. ELONGATED HOLE 1 REQD

SKIN (REF)

STIFFENER & HOLE LOCATIONS:
SERIAL 47747 & ON.

Figure 2. Stiffener Installation

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Figure 3. Template - Venturi Tube