Title  SHOULDER HARNESS INSTALLATION  
(Pilot & Copilot)

MODELS AFFECTED  
120  
140  
140A

SERIALS AFFECTED  
120-8000 thru 120-15075  
140-8000 thru 140-15075  
140A-15200 thru 140A-15724

PARTS LIST:

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<td>4</td>
<td>MS20426AD3-4</td>
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CHANGE IN WEIGHT AND BALANCE:

WEIGHT INCREASE  1.5 pounds  
ARCH  21.1 inches  
RESULTANT MOMENT  32.0 pound-inches  
INDEX  0.032

NOTE  
The leading edge of the wing is the reference datum for both the 120 and 140 Series aircraft.

1. DESCRIPTION OF INSTALLATION.
   a. Installation of this kit consists of:
      (1) Locating and drilling holes in cabin top and installing nutplates in rear carry-thru spar.  
      (2) Installing hooks on the rear spar. Installing and adjusting the harness assemblies.

2. INSTALLATION INSTRUCTIONS.
   a. (Refer to figure 2.) Shoulder Harness Installation.
      (1) Locate and drill holes (12) thru cabin top skin (3) per dimensions shown on sheet 2 of 2.  
      (2) Locate and drill holes (13) thru lower surface of spar. Using nutplates (5) as a template, drill 
      holes (11) thru lower surface of spar.

      [CAUTION]  
      On the 140 Model aircraft, be careful not to drill into headliner (10).
(3) Install nutplates (5) thru hole in cabin top (12) and place over holes (13) in lower spar. Secure nutplate (5) to spar (4) with rivets (11).

(4) Plug holes (12) with plug buttons (2) and seal with RTV-102 sealant (General Electric) or equivalent.

(5) On 120 Model aircraft, raise upholstery curtain (9) up to bottom of spar (4). Install hooks (7) securing with bolts (6). Mark the curtain (9) where hook (7) protrudes thru curtain. Cut a slot thru curtain. Finish edge of slot to prevent tearing of curtain. Reattach upholstery curtain to the original position.

(6) On 140 Model aircraft, push headliner (10) up against spar (4), feel along spar until holes (13), sheet 2 of 2, can be felt thru headliner. Punch holes thru headliner to match holes (13), then install hooks (7) and secure with bolts (6). The headliner will be secured between the hook and the spar as shown.

(7) Attach shoulder harness (8) to hook (7). Slide lower end of shoulder harness over safety belt buckle and adjust to correct length.

(8) Refinish plug buttons (2) to match exterior color of aircraft, if applicable.
TYPICAL INSTALLATION - PILOT & COPILOT MODEL 120

1. 0411372 CABIN TOP (REF)
2. CM2692-28-1S PLUG BUTTON 2 REQD
3. 0411975 SKIN (REF)
4. 0411108 SPAR (REF)
5. NAS680A4 NUTPLATE (REF)
6. AN4-4A BOLT 2 REQD
7. 0411936-2 HOOK 2 REQD
8. S2029-1 SHOULDER HARNESS 2 REQD
9. CURTAIN UPHOLSTERY (REF)

TYPICAL INSTALLATION - PILOT & COPILOT MODEL 140

1. 0411372 CABIN TOP (REF)
2. CM2692-28-1S PLUG BUTTON 2 REQD
3. 0411124 SKIN ASSY (REF)
4. 0411108 SPAR (REF)
5. NAS680A4 NUTPLATE (REF)
6. AN4-4A BOLT 2 REQD
7. 0411936-2 HOOK 2 REQD
8. S2029-1 SHOULDER HARNESS 2 REQD
9. HEADLINER (REF)

Figure 2. PILOT & COPILOT SHOULDER HARNESS INSTALLATION - SHEET 1 of 2.
Figure 2. Pilot & Copilot Shoulder Harness Installation - Sheet 2 of 2.