

### INSPECTION DOCUMENT 02

Date:	_____
Registration Number:	_____
Serial Number:	_____
Total Time:	_____

#### 1. Description

- A. Inspection Document 02 gives a list of item(s), which are completed at every 24 calendar months.
- B. Inspection items are given in the sequence of the zone in which the inspection is completed. A description of the inspection, as well as the Item Code Number are supplied for cross-reference to section 5-10-01. Frequently, tasks give more information about each inspection. These tasks are found in the individual chapters of this manual.
- C. The right portion of each page gives space for the mechanic's and inspector's initials and remarks. You can use copies of these pages as a checklist while you complete the tasks in this Inspection Document.

#### 2. General Inspection Criteria

- A. As you complete each of the inspection tasks in this Inspection Document, examine the adjacent area while access is available to find conditions that need more maintenance.
- B. If it is necessary to replace a component or to make a change to a system while you complete a task, do the task again before the system or component is returned to service.
- C. Inspection Kits are available for some Inspection Documents. They supply consumable materials used to complete the inspection item(s) given for the interval. Refer to the Model 208 Illustrated Parts Catalog, Introduction, Service Kit List to find applicable part numbers.

ITEM CODE NUMBER	TASK	ZONE	MECH	IN-SP	REMARKS
B560001	Functional Check of the Windshield Task 56-00-01-720	240			
A710001	Engine Compartment Zonal Inspection Task 71-00-01-210	130			
*** End of Inspection Document 02 Inspection Items ***					

### Task 56-00-01-720

#### 3. Windshield Functional Check

**NOTE:** The optical inspection procedure included in this section will find voids and cracks in the area of the fastener holes of the acrylic windows without the removal of the edge retainers or their related fasteners. The inspection will look for cracks that start at the fastener hole(s) and go to adjacent fastener holes, into the viewable area, or to the edge of the window.

**NOTE:** An optical prism can be purchased or locally fabricated. Refer to Figure 601 for information on how to make the optical prism.

##### A. General

- (1) This task gives the procedures to do a functional check of the windshield.

##### B. Special Tools

- (1) Optical Prism

**NOTE:** The 70-degree or the 6580000-1 optical prisms are permitted to use for this functional check.

- (2) Aliphatic Naphtha
- (3) Mild Soap or Detergent (Hand Dishwashing Type Without Abrasives)
- (4) Couplant

##### C. Access

- (1) Remove the windshield deicing ducts.

##### D. Do the Functional Check of the Windshield (Procedure with a 70-Degree Prism) (Refer to Figure 602).

**CAUTION:** The use of cleaning materials other than aliphatic naphtha followed by a solution of liquid soap and water solution can cause crazing of the acrylic windows.

- (1) Use aliphatic naphtha followed by a solution of liquid soap and water solution to thoroughly clean dust and unwanted material from the window. Clean the acrylic window area a minimum of six to eight inches from the fastener holes.
- (2) Apply the couplant to the 70-degree face of the prism and the inspection area of the window.

**NOTE:** The inspections are done from the outside surface of the windows.

- (3) Put the prism on the window, refer to Figure 602.
- (4) Use the light source to add light at an angle of 30 to 60 degrees from the vertical of the prism and examine the fastener holes.

**NOTE:** To get a clear view of both the top and the bottom surfaces of the fastener hole, move the prism toward, or away from the fastener.

- (a) The image of an undamaged hole will show as a cylinder that is not transparent.
  - (b) The image of a fastener hole with a crack that extends from one surface of the material under inspection into the hole will show as a reflection. The reflection is not transparent and it extends from the fastener hole as in View A-A of Figure 602.
  - (c) The image of a crack from one fastener hole to an adjacent fastener hole will show as an irregular surface that is not transparent. View B-B of Figure 602 shows a crack from hole to hole.
- (5) After the inspection is completed, remove the couplant from the window with aliphatic naphtha followed by a weak soap and water solution.
  - (1) If you find a crack, contact Cessna Propeller Aircraft Product Support, P.O. Box 7706, Wichita, KS 67277 USA. Telephone 316-517-5800. Provide the following information:
    - (a) Crack location
    - (b) Crack length
    - (c) Crack orientation

##### E. Do the Functional Check of the Windshield (Procedure with a 6580000-1 Prism) (refer to Figure 603).

**CAUTION:** The use of cleaning materials other than aliphatic naphtha followed by a solution of liquid soap and water solution can cause crazing of the acrylic windows.

- (1) Use aliphatic naphtha followed by a solution of liquid soap and water solution to thoroughly clean dust and unwanted material from the window. Clean the acrylic window area a minimum of six to eight inches from the fastener holes.
- (2) Apply the couplant to the face of the prism and the inspection area of the window.

**NOTE:** The inspections are done from the outside surface of the windows.

- (3) Put the prism to the window as shown in Figure 603, and with the light source to add light at an angle of 30 to 60 degrees from the vertical of the prism, examine the fastener holes.
- (4) After the inspection is completed, remove the couplant from the window with aliphatic naphtha followed by a weak soap and water solution.
- (1) If you find a crack, contact Cessna Propeller Aircraft Product Support, P.O. Box 7706, Wichita, KS 67277 USA. Telephone 316-517-5800. Provide the following information:
  - (a) Crack location
  - (b) Crack length
  - (c) Crack orientation

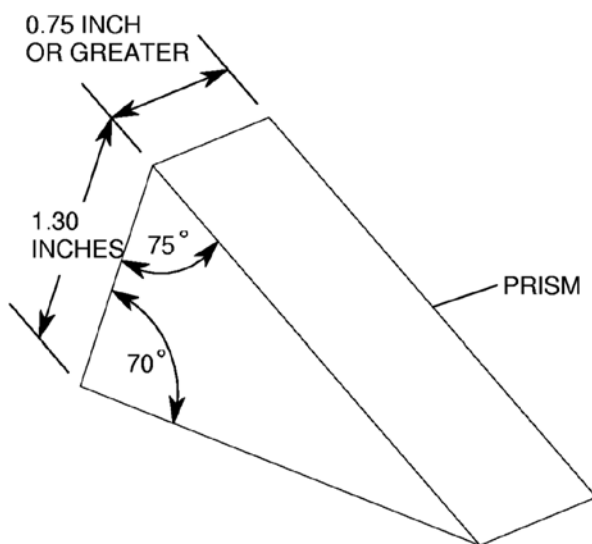
**F. Restore Access**

- (1) Install the windshield deicing ducts.

**End Task**

**Figure 601. Fabrication of Optical Prism**

A2002



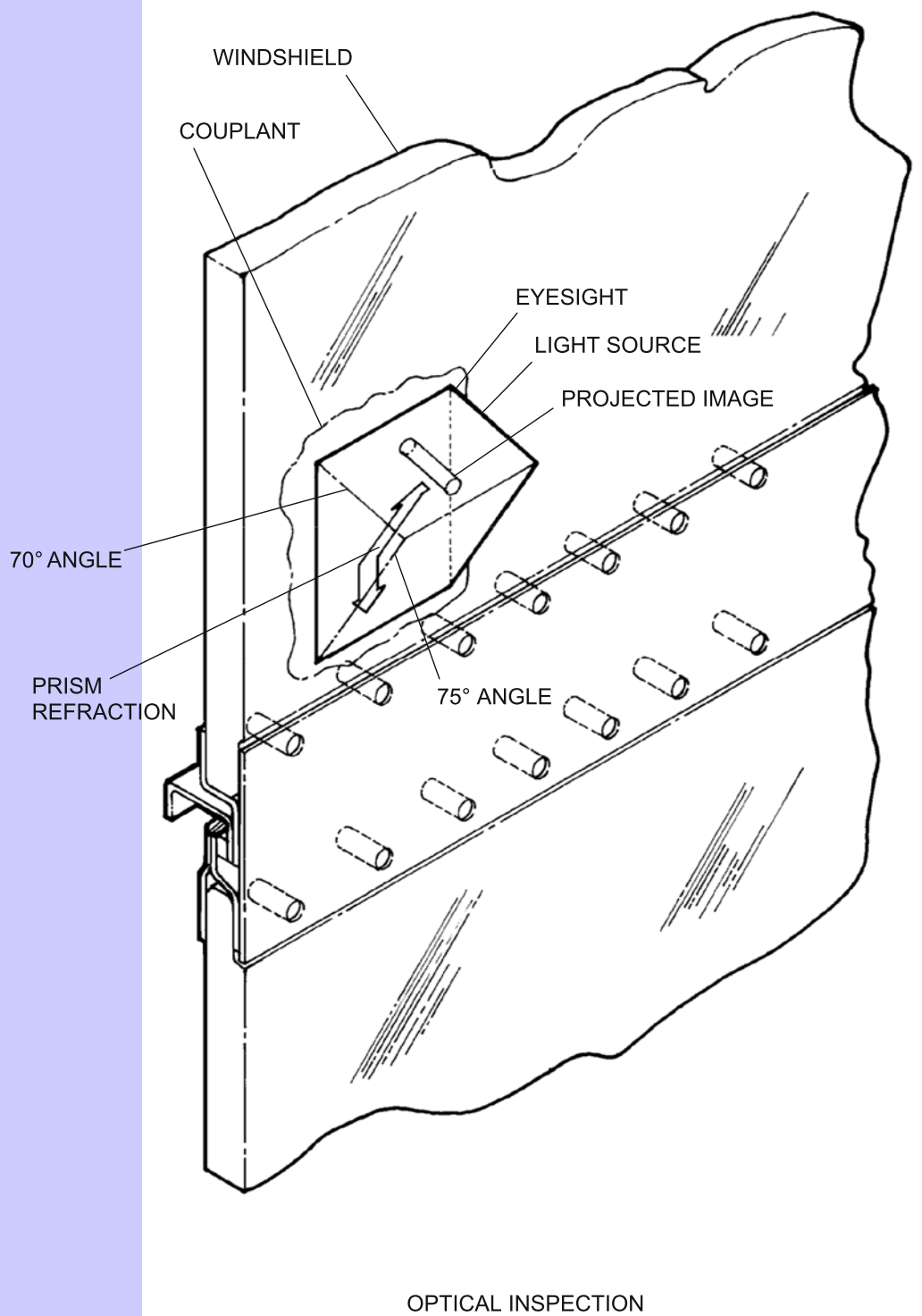
FABRICATE PRISM FROM TYPE II UVA ACRYLIC,  
MIL-P-5425D, 0.75 INCH MINIMUM THICKNESS

5583T1011

Sheet 1 of 1

**Figure 602. Optical Inspection Using 70-Degree Prism**

A2003

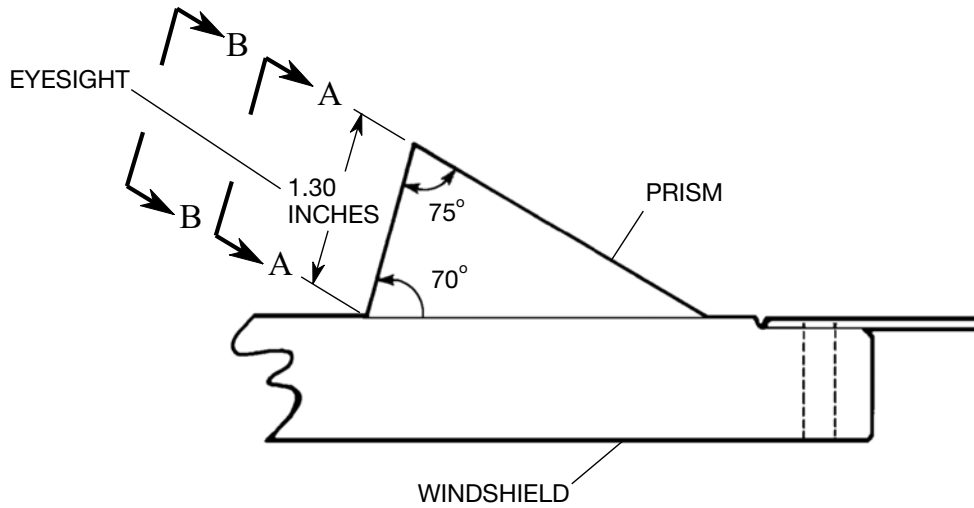


OPTICAL INSPECTION

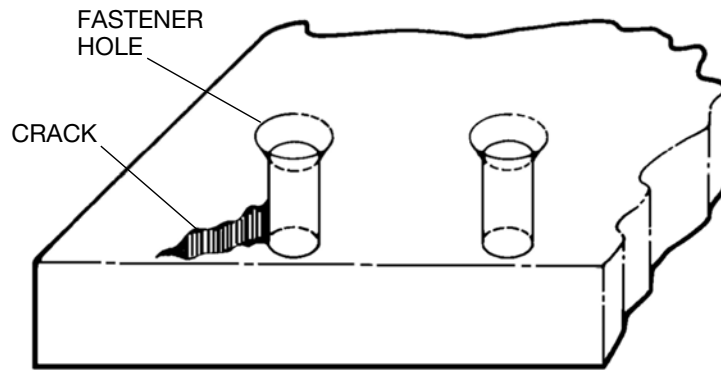
65832001

Sheet 1 of 2

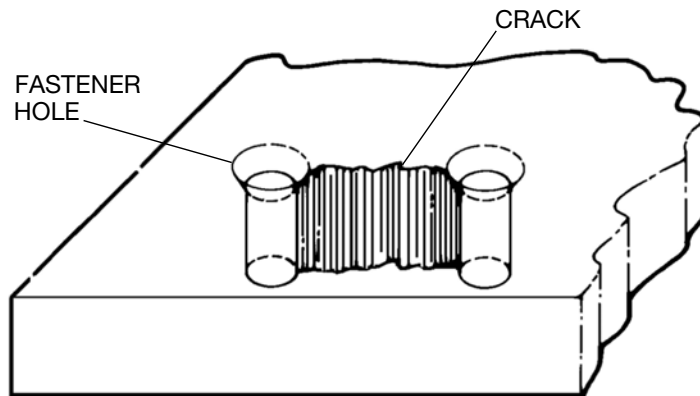
A2004



DETAIL A



VIEW A#A

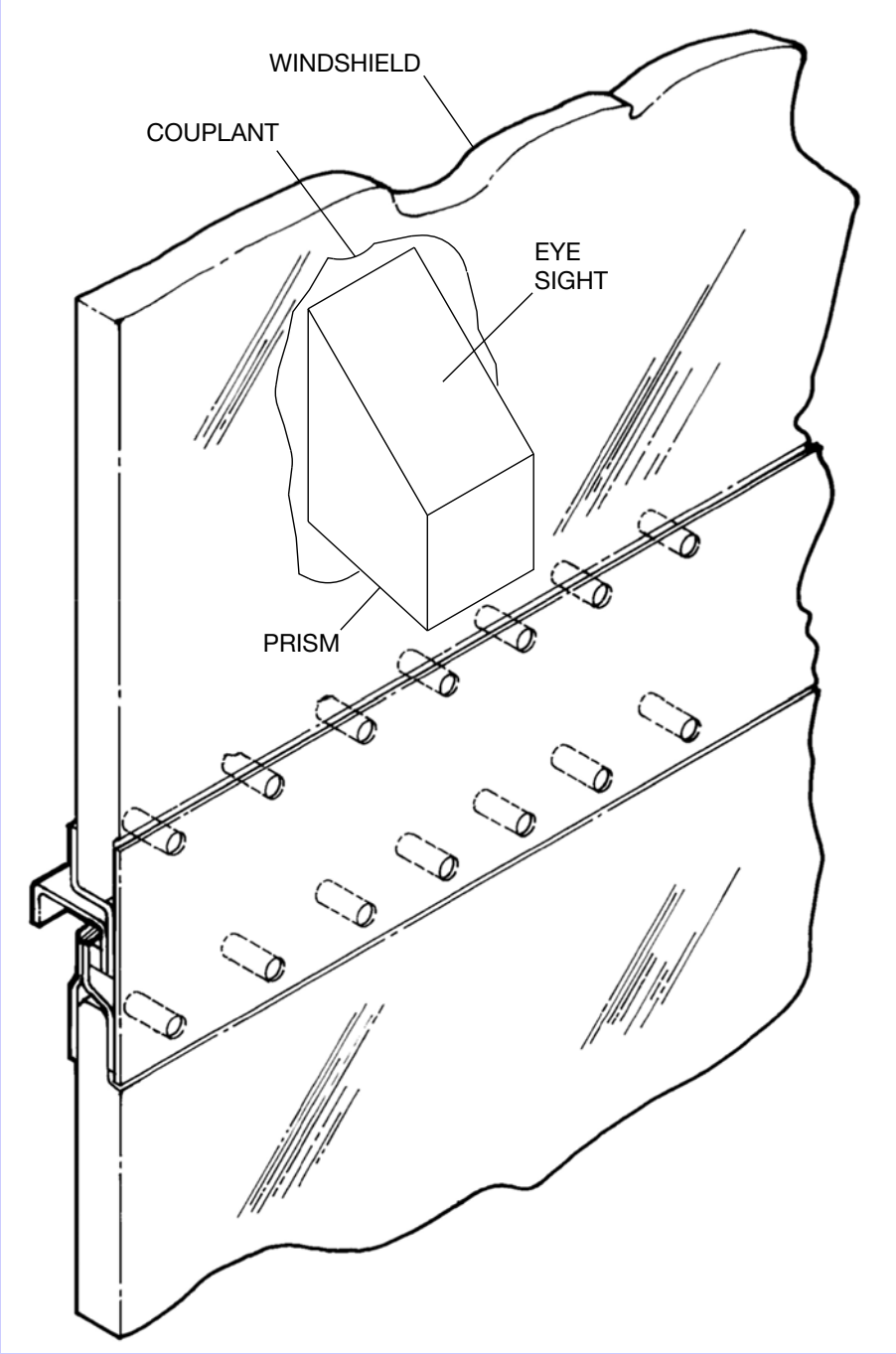


VIEW B#B

A65832001  
AA65832001  
BB65832001

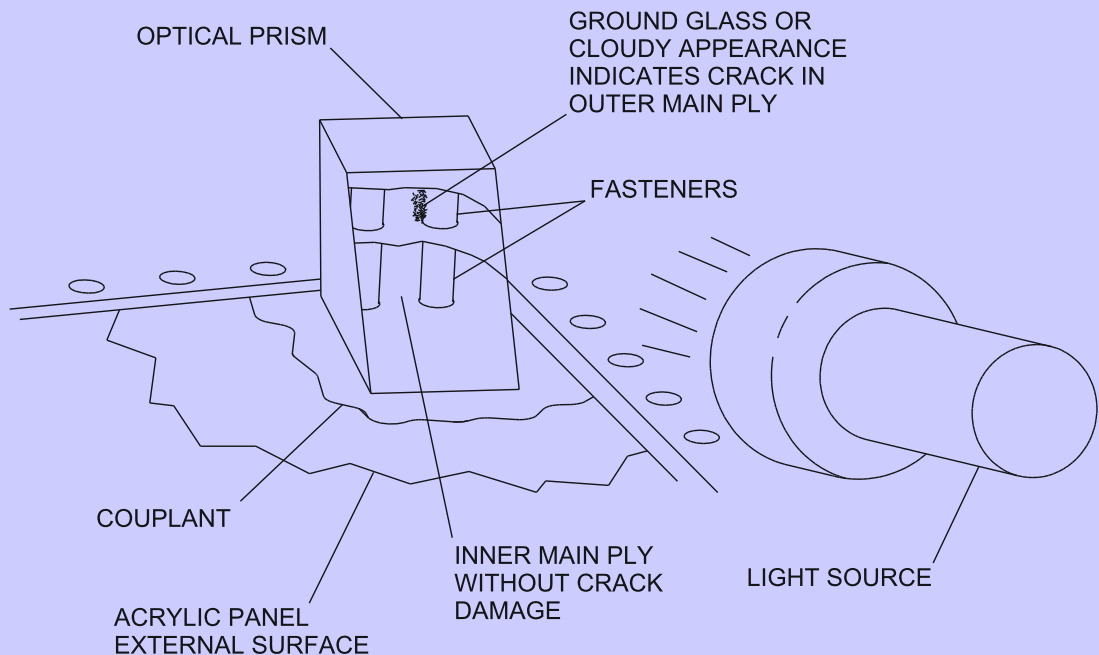
**Figure 603. Optical Inspection Using 6580000-1 Prism**

A83892



A5583T1012

A16123



A5583T1013



## Task 71-00-01-210

### 2. Engine Compartment Zonal Inspection

#### A. General

- (1) The Zonal Inspection Program (ZIP) includes a series of General Visual Inspection (GVI) tasks. This section gives ZIP procedures for an zonal inspection of the engine compartment.

**NOTE:** An engine compartment zonal inspection is a general visual examination that includes all systems and structural components in the engine compartment area, installation, or assembly. This includes checks for evidence of degradation such as corrosion, cracks, chafing of tubing, loose duct support, wiring damage, cable wear, fluid leaks, insufficient drainage, and for other conditions that could cause corrosion/damage. This level of inspection is completed during normal lighting conditions such as daylight, hangar light, drop-light, or flashlight at approximately "arm length" inspection distance to the object. It can be necessary to remove and/or open access panels or doors to do an engine and engine compartment zonal inspection. A mirror can be necessary to enhance visual access to all exposed surfaces in the inspection area. Stands, ladders, or platforms can be necessary to get access to the area that is checked.

#### B. Special Tools

- (1) None

#### C. Access

- (1) Remove the engine cowlings. Refer to Engine Cowling and Nose Cap - Maintenance Practices.

#### D. Do the Engine Compartment Zonal Inspection.

**NOTE:** This inspection is from the forward tip of the nose spinner to FS 100.00.

- (1) Examine the engine compartment for damage and signs of overheating. Refer to Chapter 20, High Intensity Radiated Fields (HIRF) - Inspection/Check, External Zonal Visual Inspection of Lightning and High Intensity Radiated Fields.
- (2) Examine all of the systems and structural components for damage, corrosion, cracks, loose fasteners, loose/misalignment of linkage, and correct installation.
- (3) Examine all tubing, hose, and fluid fittings for signs of leaks, damage, chafing, and correct clamp installation.
- (4) Examine all placards and markings for security of installation, legibility, and correct location.
  - (a) For the correct placards and placard locations. Refer to the Pilots Operating Handbook or Chapter 11, of the Model 208 Illustrated Parts Catalog.
- (5) Examine for contamination and look carefully for quantities of combustibile material.
  - (a) Remove all of the combustibile material that has collected.

**NOTE:** Combustibile material can be fuel vapor, engine oil, and/or dust or lint that has collected.

**NOTE:** An inspection for contamination and combustibile material meets the requirements of the Enhanced Zonal Inspection Program.

#### E. Restore Access

- (1) Install the engine cowlings. Refer to Engine Cowling and Nose Cap - Maintenance Practices.

### End Task