Federal Aviation Administration

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Airworthiness Directive

Federal Register Information

Header Information

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

Amendment 39-3202; AD 78-09-05

Airworthiness Directives; CESSNA Models 336, 337, 337A, 337B, T337B, 337C, T337C, 337D, T337D, 337E, T337E, 337F, T337F, T337G, 337H, T337H, T337G, P337H and M337B Airplanes

PDF Copy (If Available):

Preamble Information

AGENCY: Federal Aviation Administration, DOT

DATES: Effective May 11, 1978.

Regulatory Information

78-09-05 CESSNA: Amendment 39-3202. Applies to the following models and serial number airplanes certificated in all categories:

MODELS	SERIAL NUMBERS
336	336-0001 through 336-0195
337, 337A, 337B, T337B, 337C, T337C, 337D and T337D	337-0001 through 337-1193

337E, T337E, 337F, T337F, 337G, 337H and T337H	33701194 through 33701852
T337G and P337H	P3370001 through P3370313
M337B	All serial numbers

Compliance: Required as indicated in accordance with Compliance Table I set forth in this AD or as otherwise set forth herein, unless already accomplished.

To detect cracking of the wing front and rear spar lower caps, front spar web and web doubler - In accordance with instructions set forth herein and in Cessna Multi-Engine Service Letter ME78-2, dated February 13, 1978, or later revisions:

I. At time intervals noted in Table I of this AD, inspect the right and left wing front and rear spar lower cap and front spar web and web doubler on airplanes having model and serial numbers shown below;

TABLE 1
COMPLIANCE TIMES

Airplane Type/ Operation	Total Time in Service for each of the following:	Inspection Times for Spar Cap - Inspections required by Paragraph I.A.		Inspection Times for Front Spar Web - Inspections Required by Paragraph I.B.	
	1) Front Spar Lower Cap	Initial Inspection in accordance with this AD	Interval for Repetitive Inspections	Initial Inspection	Interval for Repetitive Inspections*
	2) Rear Spar Lower Cap 3) Front Spar Web & Web Doubler				
Non-Pressurized (See Note 1)	0 to 4999	None	None	None	None
	5,000 & up	Within 25 hours time-in-service after the effective date of this AD for those airplanes which have not yet been inspected in accordance with AD 76-10-11 or 73-04-02 or; within 500 hours time-in-service after the last inspection in accordance with AD 76-10-11 or	500 hours	Within 25 hours time-in-service after the effective date of this AD.	500 hours

		73-04-02.			
Pressurized (See Note 1)	0 to 9,999	None	None	None	None
	10,000 & up	Within 25 hours time-in-service after the effective date of this AD for those airplanes which have not yet been inspected in accordance with AD 76-10-11 or 73-04-02 or; within 500 hours time-in-service after the last inspections in accordance with AD 76-10-11 or 73-04-02.	500 hours	Within 25 hours time-in-service after the effective date of this AD.	500 hours
NOTE 1:					
For those airplanes which have engaged in contour or terrain following operations at low altitudes, such as power/pipeline patrol, fish or game spotting, aerial applications, police patrol, live-stock management, etc., Cessna recommends and FAA strongly urges inspections at intervals shown to the right of this note.	0 to 2,999 3,000 & up	None Within 25 hours time-in-service after the effective date of this AD for those airplanes which have not yet been inspected in accordance with the suggestion in AD 76-10-11 or 73-04-02 or, within 300 hours time-in-service after the last inspection in accordance with AD 76-10-11 or 73-04-02.	None 300 hours	None Within 25 hours time-in-service after the effective date of this AD.	None 300 hours *After initial inspection in accordance with this AD the compliance time for repetitive inspections may be adjusted to allow compliance at the same time as the inspections required by paragraph 1A of this AD.

A. Front and rear spar lower cap inspection;

Model	Serial Numbers
336	336-0001 through 336-0195
337, 337A, 337B, T337B, 337C, T337C, 337D, and T337D	337-0001 through 337-1193
337E, T337E, 337F, T337F, and 337G	33701194 through 33701548
T337G	P3370001 through P3370138
M337B	All serial numbers

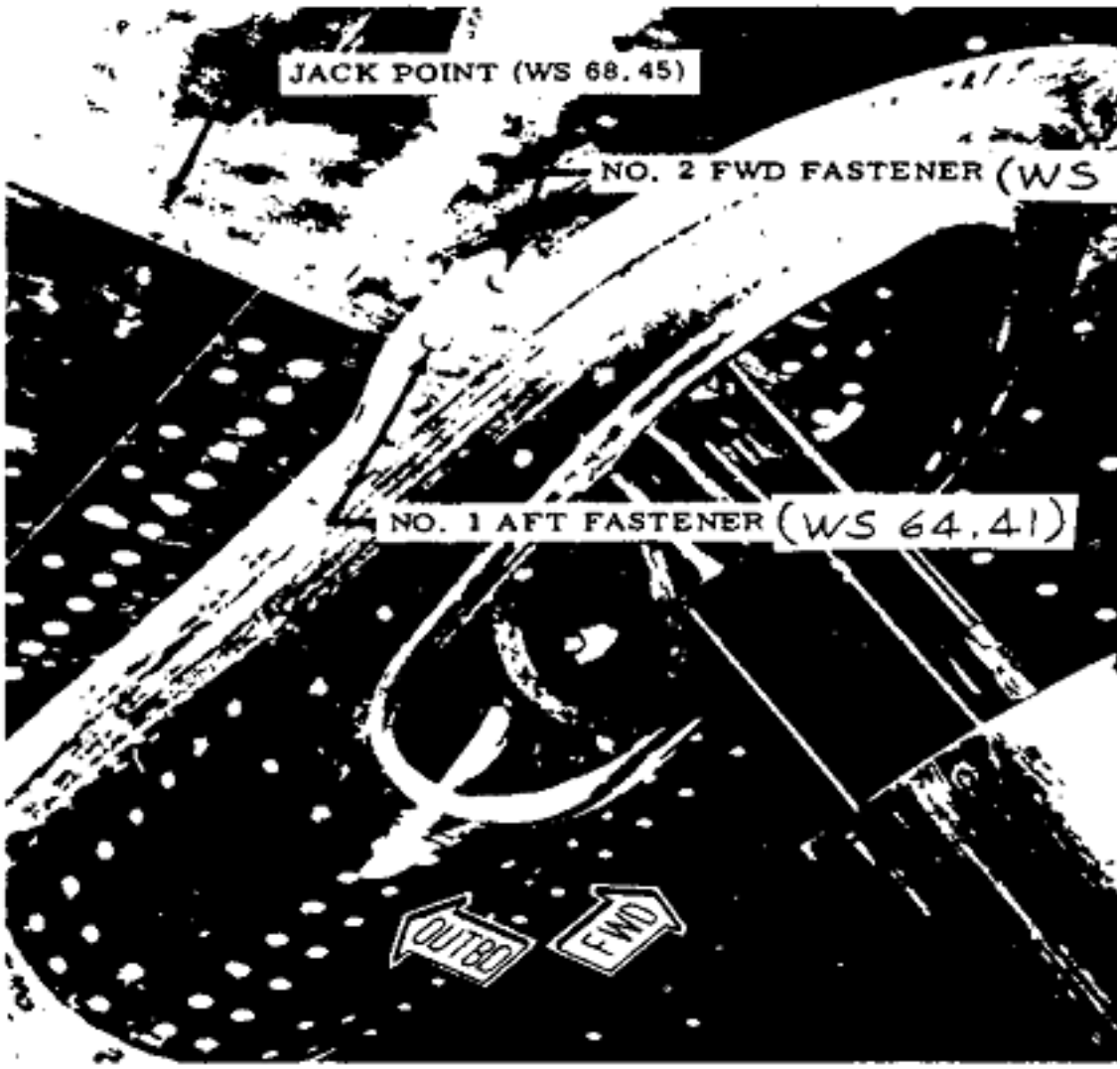
1. Front spar lower cap inspection.

a. Inspect three fastener holes on the left wing and three fastener holes on the right wing for wing spar cracks using eddy current inspection procedures outlined in the above noted Cessna Service Letter. Figure 1 shows the area involved and the three fasteners (two NAS 221 screws at W.S. 64.41 and the jack point bolt hole at W.S. 68.45) that are to be inspected.

b. Remove the two NAS 221 screws at Wing Station 64.41 one at a time for this inspection and hold the boom fairing firmly against underlying thicknesses of material to insure proper eddy current probe depth settings during this inspection. A cross-section with the screws at W.S. 64.41 removed is shown in Figure 2. Figure 3 shows the spar assembly (less boom and wing skins) and the relationship of the lower cap to the other parts at the strut attachment. Figure 4 shows the spar cross-section thru the jack point bolt hole.

WING STRUT ATTACHMENT AREA

WITH STRUT CUFF REMOVED



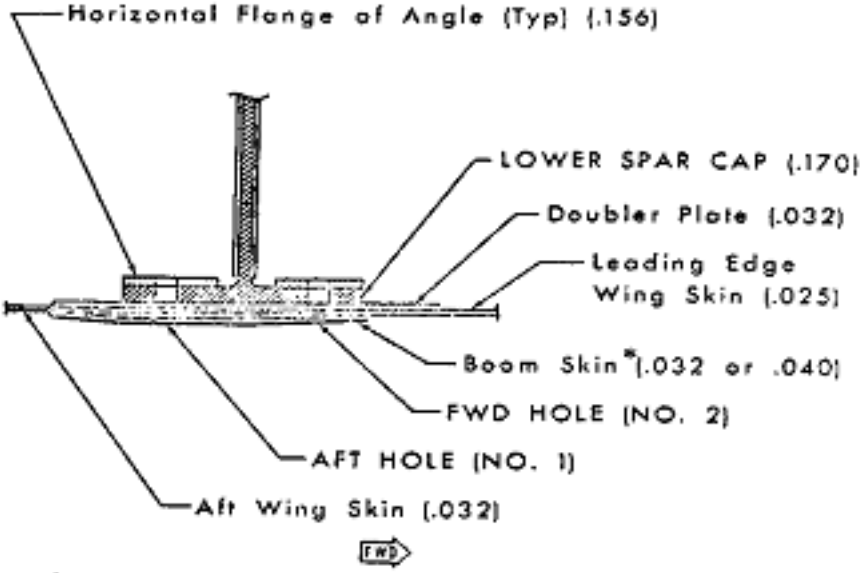
78-09-05

FIGURE 1

VIEW LOOKING UP AT R.H. WING - L.H. TYPICA

LOWER SPAR CAP AT FASTENERS

Wing Station 64.41



*.032 THRU SN 337-0755

.040 SN 337-0756 AND ON

Fig. 2

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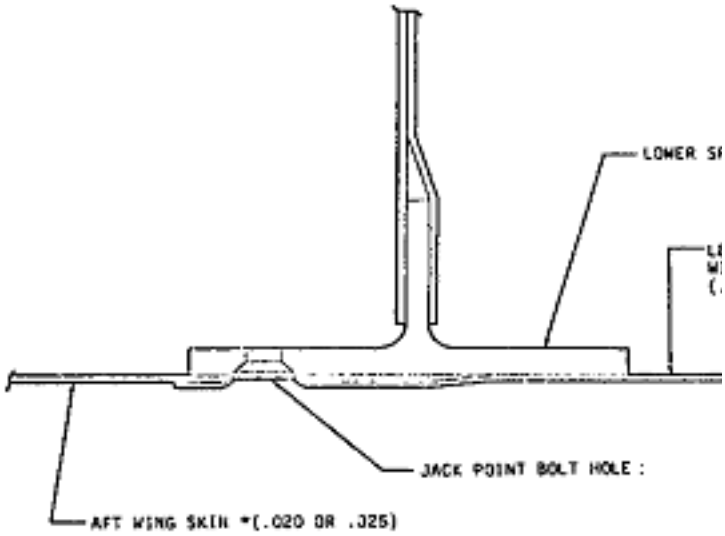
Fig. 3

AD 78-09-05

LOWER SPAR CAP AT JACK POINT

WING STATION 68.45



*.020 THRU SERIAL 337-0755

.025 SERIAL 337-0756 & ON

FIGURE 4

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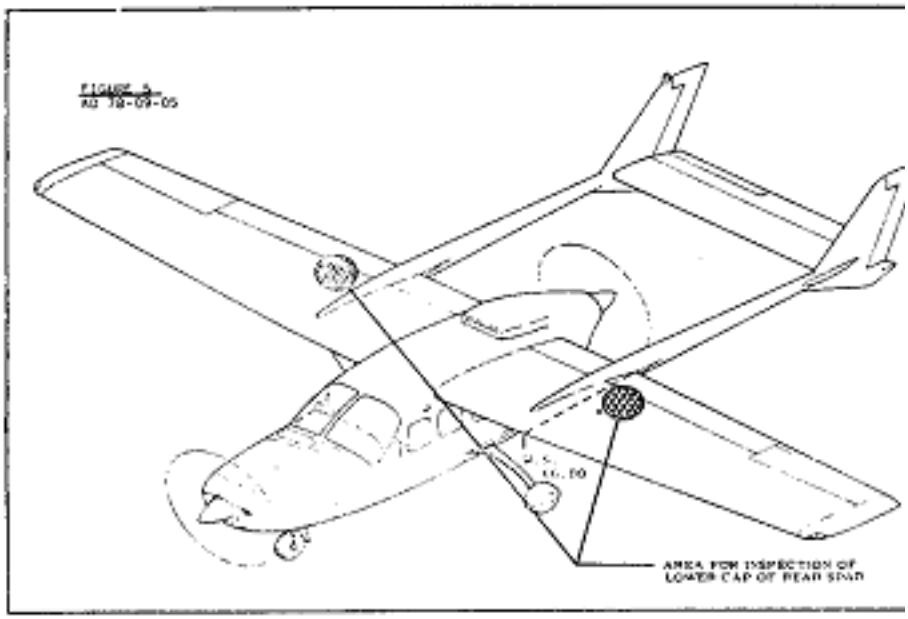
c. If cracks are found in either the right or left wing front spar lower cap during any inspection required by this AD, prior to approving the airplane for return to service replace the front spar lower cap in both the right and left wing with new spar caps.

2. Rear spar lower cap inspection.

a. Dye penetrant inspect the lower spar cap area between two and three inches (2nd rivet outboard of W.S. 66.00 rib) outboard of wing station 66.00 rib for spar cap cracks originating in the rivet hole in accordance with inspection provisions in the above noted Cessna Service Letter. Figures 5, 6 and 7 show the location of the area on the rear spar lower cap to be inspected.



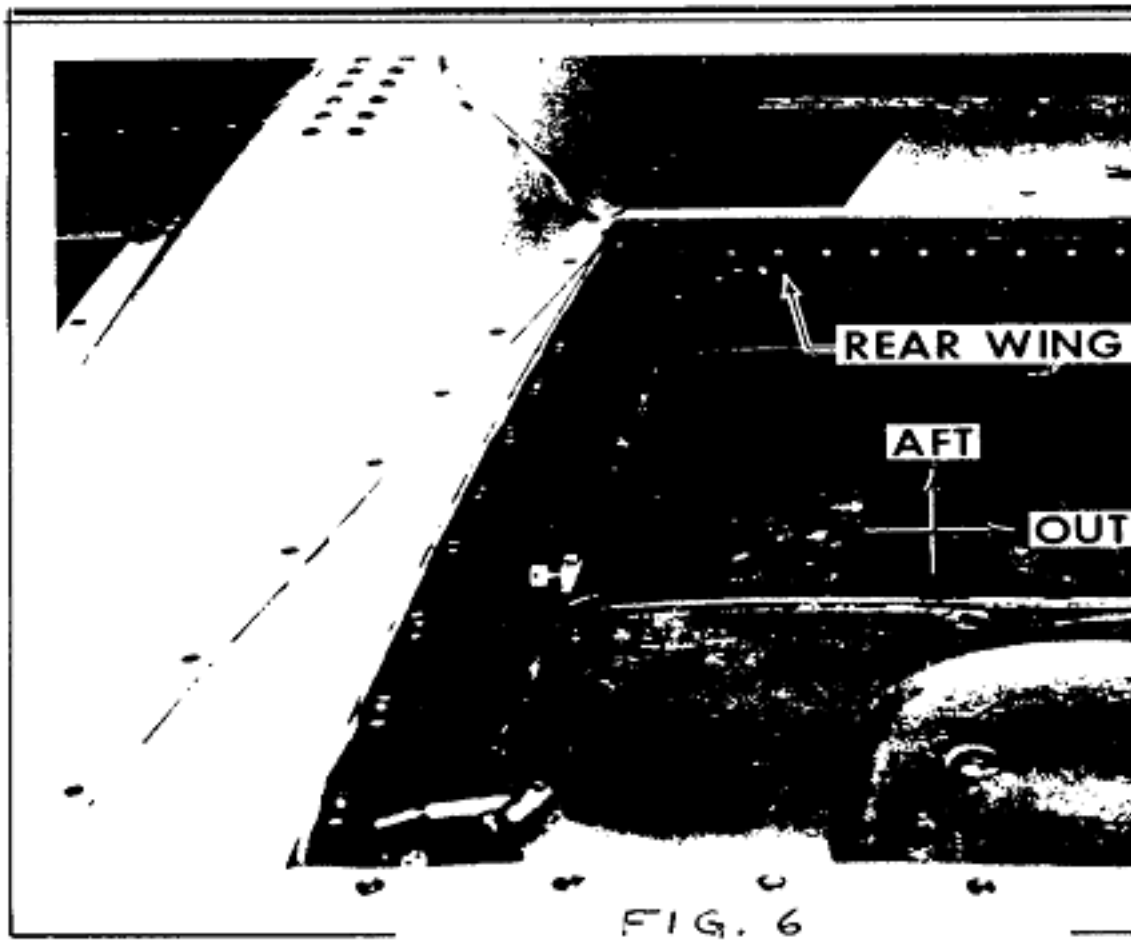


FIG. 6
TANK COVER REMOVED FROM
TOP OF WING
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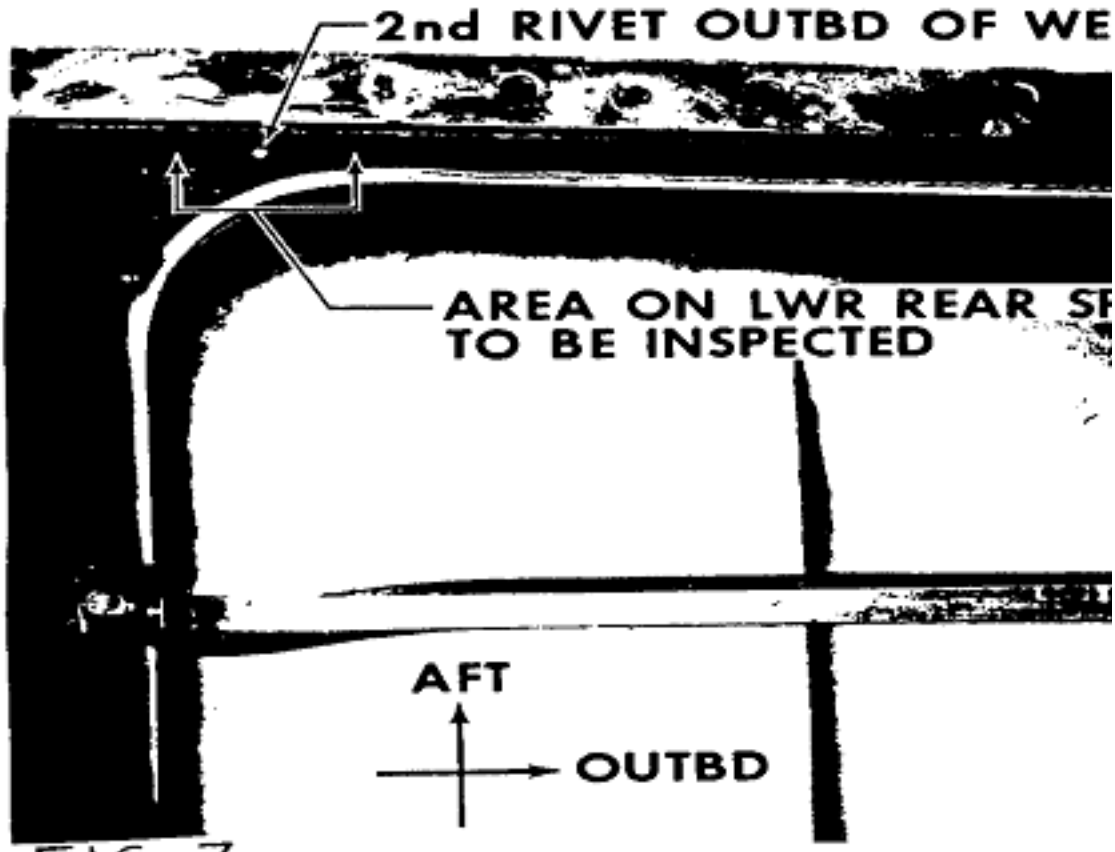

FIG. 7
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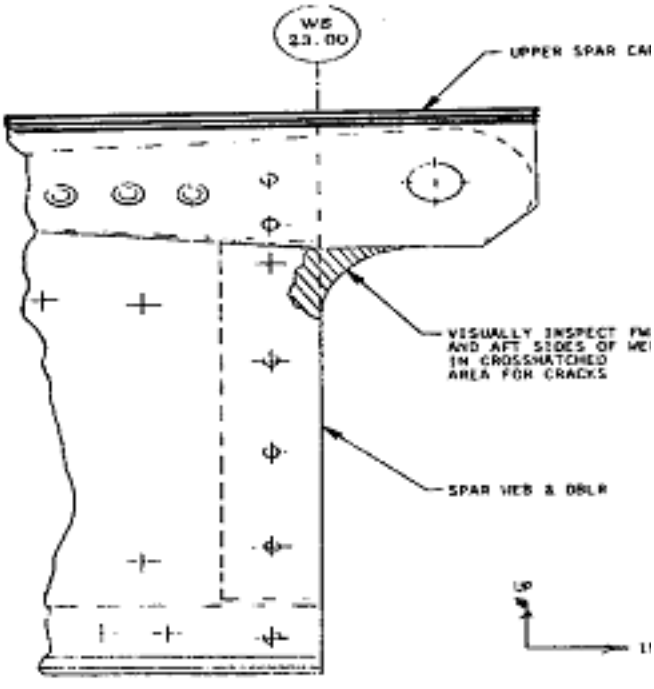

FIGURE 8 FRONT SPAR ASSEMBLY AD 78

b. If cracks are found in either the right or left wing rear spar lower cap during any inspection required by this AD, prior to approving the airplane for return to service replace the rear spar lower cap in both the right and left wing.

B. Front spar web and web doubler inspection;

Model	**Serial Numbers**
336	336-0001 through 336-0195
337, 337A, 337B, T337B, 337C, T337C, 337D and T337D	337-0001 through 337-1193
337E, T337E, 337F, T337F, 337G, 337H and T337H	33701194 through 33701852
T337G and P337H	P3370001 through P3370313
M337B	All serial numbers

1. Remove wing root access panels and wing root fairings.

2. Visually inspect the radii of both the spar web and web doubler for cracks in the shaded critical area shown in Figure 8 of this AD.

3. If cracks are found in either the right or left wing front spar web or web doubler during any inspection required by this AD, prior to approving the airplane for return to service, replace the discrepant components.

II. Airplanes found to have cracked spar caps, webs or web doublers during inspections required by this AD may be flown in accordance with FAR 21.197 to a base where the component replacement can be accomplished.

III. Accomplish the repetitive inspections made mandatory by this AD on those spar caps, webs and web doublers replaced in accordance with this AD upon accumulation of the total times-in-service shown in Table I of this AD. Repetitive inspections "strongly urged" via Note 1 in Table I of this AD should also be accomplished on spar caps, webs and web doublers replaced in accordance with this AD upon accumulation of the total times-in-service shown in Note 1, Table I, of this AD.

IV. Notify in writing the Chief, Engineering and Manufacturing Branch, FAA, Central Region, of the location and length of any crack found during inspections required by this AD and also the total time in service of the component at the time the crack was discovered. (Reporting approved by the Office of Management and Budget under OMB NO. 04-R0174.)

V. The time interval for repetitive inspections required by this AD, after compliance with initial inspection requirements, can be adjusted up to 25 hours to allow accomplishment of these inspections at regular scheduled maintenance periods.

VI. Equivalent methods of compliance with this AD must be approved by the Chief, Engineering and Manufacturing Branch, FAA, Central Region.

This AD supersedes AD 76-10-11, Amendment 39-2621 (41 FR 22405, 22406, 22407 and 22408).

This Amendment becomes effective May 11, 1978.

Footer Information

Comments