

297904

AD Worksheet

FAA-04-18997-4

Aircraft Certification Service

DEPT. OF TRANSPORTATION
DOCKETS

Transport Airplane **RECEIVED** Date "Short" Domestic Worksheet

DOCKET NUMBER: 2004-10M-19-AD
TECH WRITER:

JAN 28 2004

Manufacturer's Service Information **ANM-114** Revision/Date (Attach 2 clean copies):
Boeing Service Bulletin 737-53A1241 R0, dated June 13, 2002

PROPOSED CORRESPONDING ACTION:

<input type="checkbox"/> Emergency AD	<i>Is this action one of the following?</i>
<input type="checkbox"/> Immediately Adopted AD	<input type="checkbox"/> Supersedure of AD (Docket No. TBD)
<input checked="" type="checkbox"/> Notice of Proposed Rulemaking	<input type="checkbox"/> Revision of AD (Docket No. TBD)
<input type="checkbox"/> Final rule after NPRM <i>(If FRAN, complete Attachment A.)</i>	<input type="checkbox"/> Supplemental NPRM (Docket No. TBD) <i>(If any of the above is checked, complete Attachment B.)</i>
<input type="checkbox"/> Other (No-Notice Final Rule)	

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1. Model, Applicability, # Airplanes (both U.S. & worldwide) - Refer to SB; state any differences for this AD:

Model: Boeing Model 737-100/-200/-200C/-300/-400/-500
 Applicability: Line numbers 1 through 3132 excluding (qty 19) military airplanes PJ201-PJ219 without forward galley door or provisions.

U.S. airplanes: 876 # worldwide airplanes: 3113
 Source: National Aviation Safety Data Analysis Center (NASDAC)

AD Summary and Discussion Sections:

2. What has the manufacturer told the FAA? "The FAA has received reports indicating that..."
Describe background/events that prompted the AD in 1-2 sentences. Refer to SB 'Reason.'

The FAA has received several reports of fatigue cracks in the web of the Body Station 291.5 frame. The cracks initiate at the frame web cutout for the Stringer 16 Right doorstop intercostal strap.

3a. What is the unsafe condition AND its cause? "These actions are intended to prevent..."
Describe unsafe condition and its cause in 2-3 sentences (non-technical terms). Refer to SB 'Reason.'

The actions of this AD are intended to detect cracks in the web of the BS 291.5 frame before they become critical. Undetected cracks may propagate and could lead to a severed BS 291.5 fuselage frame. Severing of the fuselage doorway frame could render the door retention mechanisms and fuselage pressure vessel ineffective.

3b. What is the end-level effect on the airplane?

"...which could result in..."

Provide a 1-sentence description; use non-technical terms.

A severed BS 291.5 frame web could lead to rapid decompression of the aircraft cabin and possible loss of the forward galley door.

AD Relevant Service Information Section:

4. (Yes or No) Is the corrective action required in this AD considered to be interim action?

No

5. (Yes or No) Is this action considered 'sensitive', or is it related to a Safety Recommendation?

(If yes, state why sensitive, and/or provide copy of FAA/NSTB Safety Recommendation.)

No

6. Does the referenced service document include reference to an "operator's equivalent procedure?"

[If yes, specify whether that procedure employed by the operator (even if not technically 'equivalent') adequately addresses the identified unsafe condition and provides an acceptable level of safety.]

No

7. AD Differences Section (if needed):

"This AD differs from the SB

Check if: **Flight with Cracks** **Mandate Terminating Action** **Contact Mgr, FAA** **X**
 Compliance time **Mandate AFM Action**

Describe any other differences between service bulletin and this proposed FAA AD.

If cracks are found, the Service Bulletin indicates that Boeing should be contacted for repair instructions. In contrast, the AD indicates that repairs must be approved by the FAA SACO Manager or by a Boeing Company DER that has been authorized by the FAA to make such findings. Approval letters from the FAA SACO Manager must specifically reference this AD.

The Service Bulletin indicates a threshold of 50,000 total flight cycles or 2,250 flight cycles from the effective date of the Service Bulletin, whichever is later. In contrast, the AD indicates a threshold of 40,000 total flight cycles or 2,250 flight cycles from the effective date of the AD, whichever is later.

The Service Bulletin threshold of 50,000 flight cycles was determined from service history obtained prior to the release of the Service Bulletin. The AD threshold of 40,000 flight cycles was determined from service history reported after the release of the Service Bulletin. The earliest reported crack was found at 44,153 flight cycles. Two previously reported cracks were found at over 54,000 flight cycles. Boeing plans to revise the Service Bulletin to reflect the recent service history and provide a threshold of 40,000 flight cycles.

AD Cost Impact Section:

8a. Work hours for corrective action(s) required: (List hours or reference SB 'Manpower').

Accomplishment requires approximately 2 task hours per airplane (reference: SB page 36).

8b. Parts Cost, if any: (List costs or reference SB 'Material - Cost and Availability').

There are no parts associated with this AD. This is an inspection only AD.

9. AD Body Section:

For EACH corrective action, mark up SB, if usable -OR- fill out Corrective Action Table below.

9a: Action # 1

What is the corrective action? Perform detailed visual and high frequency eddy current inspection of Body Station 291.5 frame web around cutout for the doorstop intercostal strap at stringer 16R.
What is its compliance time? 40,000 total airplane flight cycles or 2,250 flight cycles after the effective date of the AD, whichever ever occurs later.
(Add grace period if not available)
What is repetitive interval? 4,500 Flight Cycles

9b: Action # 2

What is the corrective action? N/A
What is its compliance time? N/A
(Add grace period if not available)
What is repetitive interval? N/A

10. (Yes or No) Should corrective action(s) required in this AD to be applied to spares as well?

No

11. Should a ferry flight permit be: Permitted Permitted with limitations* Prohibited

*List limitations.

12. With whom outside the FAA has this proposal been discussed (i.e. ATA, RAA, ALPA, etc.)?

NOTE: This item should be completed prior to submission of the AD Proposal Worksheet.

<u>Organization</u>	<u>Person Contacted</u>	<u>Date</u>	<u>Reaction</u>
Boeing Safety	Leo Rydzewski	7/21/03	
ATA	Joe White	7/21/03	

SPEC III? (use of the lead Airline?) **YES**

13. Check the appropriate response:

Yes No **Does this action affect the Presidential fleet?**
Yes No **Does this action affect the FAA fleet?**
Yes No **Was this action prompted by the use of suspected unapproved parts (SUP)?**

14. Check the category that best describes *the cause of the unsafe condition addressed by this AD*:

<input checked="" type="checkbox"/> Design Problem	<input type="checkbox"/> Unapproved Parts	<input type="checkbox"/> Operational
<input type="checkbox"/> Maintenance	<input type="checkbox"/> Quality Control Problem**	<input type="checkbox"/> Other (specify): _____
<input type="checkbox"/>	<input type="checkbox"/> **Reporting Reqt Needed?	_____