



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0057; Directorate Identifier 2013-NM-210-AD; Amendment 39-18044; AD 2014-25-03]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. This AD was prompted by reports from multiple operators that have found fatigue cracking in the corners of the forward galley service doorway. This AD requires repetitive inspections for any cracking of the skin and bear strap doublers in the corners of the forward galley service doorway, and corrective action if necessary. This AD also provides optional terminating actions for certain repetitive inspections. We are issuing this AD to detect and correct fatigue cracking, which could result in rapid loss of cabin pressure.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax

206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0057; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Nenita Odesa, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5234; fax: 562-627-5210; email: nenita.odesa@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes. The NPRM published in the Federal Register on February 25, 2014 (79 FR 10429). The NPRM was prompted by reports from multiple operators that have found fatigue cracking of the skin and bear strap in the corners of the forward galley service doorway. Some of the reported cracks were found outside of areas of directed or recommended inspections, or in areas modified

as specified in previous revisions of Boeing Alert Service Bulletin 737-53A1116. Some airplanes were found to have multiple cracks in the corner areas. The NPRM proposed to require repetitive inspections for any cracking of the skin and bear strap doublers in the corners of the forward galley service doorway, and corrective action if necessary. The NPRM also proposed to provide optional terminating actions for certain repetitive inspections. We are issuing this AD to detect and correct fatigue cracking, which could result in rapid loss of cabin pressure.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comments received on the NPRM (79 FR 10429, February 25, 2014) and the FAA's response to each comment.

Request to Clarify Terminating Action for Initial Inspection

Southwest Airlines (Southwest) requested that the NPRM (79 FR 10429, February 25, 2014) be revised to include provisions in paragraph (i)(1) of the proposed AD for terminating the requirement proposed by paragraph (g) of the proposed AD for initial inspections in the areas of the upper aft corner that are covered by the repair. Southwest noted that paragraph (i)(1) of the proposed AD provides for terminating the repetitive inspections required by paragraph (g) of the AD. Southwest also stated that it would like clarification on whether accomplishment of a repair also terminates the initial inspection requirements of paragraph (g) of the proposed AD for the upper aft corner.

We agree to revise paragraph (i)(1) of this AD. Notes in the tables of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, state that accomplishing certain repairs terminates repetitive inspections in the areas covered by the repair. We have determined that accomplishing the repair as required by paragraph (i)(1) of this AD would also terminate the initial inspection requirement for that repaired corner. We have coordinated this issue with

Boeing and revised paragraph (i)(1) of this AD to terminate the initial inspection requirement as well. We have also revised paragraphs (i)(2) and (i)(3) of this AD accordingly.

Request to Add a Repair as a Method of Compliance

Southwest requested that paragraph (i) of the proposed AD (79 FR 10429, February 25, 2014), be revised to specifically provide for repairs accomplished using information from certain repair procedures specified in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, and to allow accomplishment of those repairs as terminating action for the inspection requirements of paragraph (g) of the proposed AD. Southwest also requested an additional provision to allow Repair 2 of section 53-10-01 of the Boeing 737-300/-500 Structural Repair Manual as terminating action for the initial and repetitive inspections proposed in paragraph (g) of the proposed AD.

We partially agree with the request. Certain repair procedures are addressed in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, as possible methods of corrective action or preventative modification. Provisions for these repair procedures are provided in paragraphs (i)(2) and (i)(3) of this AD. However, Repair 2 of section 53-10-01 of the Boeing 737-300/-500 Structural Repair Manual was not addressed in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, or considered during development of this AD. We do not consider that delaying this action until the manufacturer revises the service information to include the information in Repair 2 is warranted. To delay this action would be inappropriate since we have determined that an unsafe condition exists and that actions required by this AD must be conducted to ensure continued safety. Operators may apply for an alternative method of compliance (AMOC) under the requirements of paragraph (m) of this AD.

Request to Revise Credit Paragraph

Southwest noted that paragraph (k) of the proposed AD (79 FR 10429, February 25, 2014), gives credit for inspections of the upper corners of the forward galley doors, provided that the preventative modification is also inspected in accordance with the requirements of paragraph (g) of the proposed AD. Southwest also noted that paragraph (k) of the proposed AD does not specifically mention whether credit is given for previous repairs that were accomplished using the specified service information or explain how these repairs affect compliance with the initial inspection requirements of paragraph (g) of the AD.

We agree to clarify the intent of paragraph (k) of this AD. If any inspection of the upper corners of the forward galley service door was accomplished before the effective date of this AD using any of the service information identified in paragraphs (k)(1), (k)(2), (k)(3), and (k)(4) of this AD instead of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, those inspections are considered acceptable for compliance with certain requirements of paragraph (g) of this AD. Certain modifications specified in those previous service bulletins that were previously determined to be terminating action for inspections, have now been determined to need further inspection in accordance with paragraph (g) of this AD and Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013. Paragraphs (i)(1) and (i)(2) of this AD address repairs of the upper corners and clarify that accomplishing the repairs terminates the requirements of paragraph (g) of this AD for the inspections of the repaired area. Repetitive inspections specified in paragraph (g) of this AD are required and are only terminated if optional terminating action specified in paragraph (i) of this AD is done. We have not changed the AD in this regard.

Request to Accommodate Certain AMOCs

Southwest noted that Note 14 in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, specifies that inspections as given in that service bulletin for the upper forward corner are not necessary in the repaired area if, among other conditions, “the repair has been approved as an Alternative Method of Compliance (AMOC) to AD 2008-11-04.” Southwest pointed out that AD 2008-11-04, Amendment 39-15526 (73 FR 29421, May 21, 2008), has been superseded by AD 2014-05-21, Amendment 39-17794 (79 FR 14992, March 18, 2014), and requests that Note 14 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, also apply to repairs approved as an AMOC to AD 2014-05-21.

We partially agree with Southwest’s request. We cannot revise Boeing’s service information. However, we have added paragraph (j)(3) to this AD to provide an exception to Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, and allow a Boeing-provided repair that has been approved as an AMOC to AD 2014-05-21, Amendment 39-17794 (79 FR 14992, March 18, 2014), for the repaired area only, provided the approval was made before the effective date of this AD and the repair doubler covers the doorway upper forward corner and the upper hinge cutout.

Effect of Winglets on this AD

Aviation Partners Boeing stated that accomplishing the supplemental type certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf)) does not affect the actions specified in the NPRM (79 FR 10429, February 25, 2014).

We concur with the commenter. We have redesignated paragraph (c) of the NPRM (79 FR 10429, February 25, 2014) as (c)(1) and added new paragraph (c)(2) to this final rule to state that installation of STC ST01219SE ([http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf)) does not affect the ability to accomplish the actions required by this final rule. Therefore, for airplanes on which STC ST01219SE is installed, a “change in product” alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this AD with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (79 FR 10429, February 25, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (79 FR 10429, February 25, 2014).

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this AD.

Costs of Compliance

We estimate that this AD affects 419 airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	19 work-hours X \$85 per hour = \$1,615 per inspection cycle	None	\$1,615 per inspection cycle	\$676,685 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for any on-condition actions specified in this AD. We have no way of determining the number of aircraft that might need this repair.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2014-25-03 The Boeing Company: Amendment 39-18044 ; Docket No. FAA-2014-0057; Directorate Identifier 2013-NM-210-AD.

(a) Effective Date

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, certificated in any category, as identified in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013.

(2) Installation of Supplemental Type Certificate (STC) ST01219SE ([http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/\\$FILE/ST01219SE.pdf](http://rgl.faa.gov/Regulatory_and_Guidance_Library/rgstc.nsf/0/ebd1cec7b301293e86257cb30045557a/$FILE/ST01219SE.pdf)) does not affect the ability to accomplish the actions required by this AD. Therefore, for airplanes on which STC ST01219SE is installed, a "change in product" alternative method of compliance (AMOC) approval request is not necessary to comply with the requirements of 14 CFR 39.17.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports from multiple operators that have found fatigue cracking in the corners of the forward galley service doorway. We are issuing this AD to detect and correct fatigue cracking, which could result in rapid loss of cabin pressure.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspections and Corrective Actions for Groups 1 through 4 Airplanes

For Groups 1 through 4 airplanes identified in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013: Within the applicable compliance times specified in Tables 1 through 10 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, except as provided by paragraph (j)(1) and (j)(3) of this AD, do the applicable detailed and low frequency eddy current inspections for any cracking of the skin and bear straps in the

corners of the forward galley service door, and do all applicable corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, except as required by paragraph (j)(2) of this AD. Do all applicable corrective actions before further flight. Repeat the inspections at the applicable time specified in Tables 1 through 10 of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013.

(h) Inspections and Corrective Actions for Group 5 Airplanes

For Group 5 airplanes identified in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013: Within 120 days after the effective date of this AD, do inspections of the skin and bear straps and all applicable corrective actions using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(i) Optional Terminating Actions

(1) For Groups 1 and 2 airplanes identified in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013: Accomplishment of a repair before the effective date of this AD in the upper aft corner of the forward galley service doorway, in accordance with the Accomplishment Instructions of any service information specified in paragraphs (i)(1)(i) through (i)(1)(iv) of this AD, terminates the inspections required by paragraph (g) of this AD for that repaired doorway corner only.

(i) Boeing Service Bulletin 737-53-1116, dated July 21, 1988.

(ii) Boeing Service Bulletin 737-53-1116, Revision 1, dated September 7, 1989.

(iii) Boeing Service Bulletin 737-53-1116, Revision 2, dated September 30, 1993.

(iv) Boeing Service Bulletin 737-53-1116, Revision 3, dated July 27, 1995.

(2) For Group 2 airplanes identified in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, on which no repair or modification

was done using any of the service information identified in paragraphs (i)(2)(i) through (i)(2)(iv) of this AD; and for Group 3 airplanes identified in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013: Repairing or modifying the upper aft corner of the forward galley service doorway, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, terminates the inspections required by paragraph (g) of this AD for that repaired or modified doorway corner only.

(i) Boeing Service Bulletin 737-53-1116, dated July 21, 1988.

(ii) Boeing Service Bulletin 737-53-1116, Revision 1, dated September 7, 1989.

(iii) Boeing Service Bulletin 737-53-1116, Revision 2, dated September 30, 1993.

(iv) Boeing Service Bulletin 737-53-1116, Revision 3, dated July 27, 1995.

(3) For Groups 2 and 3 airplanes identified in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013: Repairing or modifying the lower forward or lower aft corner of the forward galley service doorway, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, terminates the inspections required by paragraph (g) of this AD for that repaired or modified doorway corner only.

(j) Exceptions to the Service Information

(1) Where Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, specifies a compliance time “after the Revision 4 date of this service bulletin,” this AD requires compliance within the specified compliance time “after the effective date of this AD.”

(2) Where Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, specifies to contact Boeing for repair instructions: Before further flight, repair the cracking using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(3) Note 14 of paragraph 3.A., “General Information” in the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, states that inspections as given in that service bulletin are not required for the upper forward corner if there is a Boeing-provided repair which has been approved as an alternative method of compliance (AMOC) to AD 2008-11-04, Amendment 39-15526 (73 FR 29421, May 21, 2008). This AD also does not require inspections for the upper forward corner given in Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, if there is a Boeing-provided repair approved as an AMOC to the corresponding requirements of AD 2014-05-21, Amendment 39-17794 (79 FR 14992, March 18, 2014), for the repaired area only, provided the approval was made before the effective date of this AD and the repair doubler covers the doorway upper forward corner and the upper hinge cutout.

(k) Credit for Previous Actions

This paragraph provides credit for the inspections of the upper corners of the forward galley service doors specified in paragraph (g) of this AD, if those actions were performed before the effective date of this AD using any of the service information identified in paragraphs (k)(1) through (k)(4) of this AD (which are not incorporated by reference in this AD), provided that any preventative modification installed using this service information is inspected in accordance with paragraph (g) of this AD.

- (1) Boeing Service Bulletin 737-53-1116, dated July 21, 1988.
- (2) Boeing Service Bulletin 737-53-1116, Revision 1, dated September 7, 1989.
- (3) Boeing Service Bulletin 737-53-1116, Revision 2, dated September 30, 1993.
- (4) Boeing Service Bulletin 737-53-1116, Revision 3, dated July 27, 1995.

(l) Post-Repair Inspections

The post-repair inspections specified in Table 11 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, are not required by this AD.

Note 1 to paragraph (l) of this AD: The post-repair inspections specified in Table 11 of paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013, may be used in support of compliance with section 121.1109(c)(2) or 129.109(b)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(b)(2)).

(m) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (n) of this AD. Information may be emailed to:

9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(n) Related Information

For more information about this AD, contact Nenita Odesa, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5234; fax: 562-627-5210; email: nenita.odesa@faa.gov.

(o) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Boeing Service Bulletin 737-53-1116, dated July 21, 1988.

(ii) Boeing Service Bulletin 737-53-1116, Revision 1, dated September 7, 1989.

Pages 20, 21, and 22 are dated July 21, 1988.

(iii) Boeing Service Bulletin 737-53-1116, Revision 2, dated September 30, 1993.

(iv) Boeing Service Bulletin 737-53-1116, Revision 3, dated July 27, 1995.

(v) Boeing Alert Service Bulletin 737-53A1116, Revision 4, dated September 30, 2013.

(3) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>.

(4) You may view this service information at FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:
<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Renton, Washington, on November 28, 2014.

John P. Piccola, Jr.,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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