



**適航指令發布單**  
**Airworthiness Directive Issuance Form**

民航局 AD 編號 AD number	CAA-2020-06-008B	發布日期 Date issued	2020/12/1												
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	Model ERJ 190-100 STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-100 SR, ERJ 190-200 STD, ERJ 190-200LR, and ERJ 190-200IGW airplanes, as identified in Embraer Service Bulletin 190-54-0015, original issue, dated July 03, 2014. Model ERJ 190-100 STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-100 SR, ERJ 190-200 STD, ERJ 190-200LR, and ERJ 190-200IGW airplanes, as identified in Embraer Service Bulletin 190-54-0015, revision 03, dated February 04, 2019. Model ERJ 190-100STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-100 SR, ERJ 190-200STD, ERJ 190-200 LR, and ERJ 190-200 IGW airplanes, as identified in Embraer Service Bulletin 190-54-0016, Revision 2, dated September 12, 2016, Model ERJ190-100 ECJ airplanes, as identified in Embraer Service Bulletin 190LIN- 54-006, original issue, dated July 03, 2014. Model ERJ190-100 ECJ airplanes, as identified in Embraer Service Bulletin 190LIN- 54-006, revision 03, dated July 17, 2019. Model ERJ 190-100 ECJ airplanes, as identified in Embraer Service Bulletin 190LIN- 54-0008, dated October 2, 2015														
主旨摘要	This AD cancels and supersedes AD N° 2020-06-02R01 and is issued to change the compliance time of Embraer SB 190-54-0015 and Embraer SB 190LIN-54-0006 for Group 3 aircraft and also updates contact information for the approval of Alternative Methods of Compliance.														
民航局 CAA <input type="checkbox"/> 本國產品 Native products  <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authorities <table border="0" style="width: 100%;"><tr><td><input type="checkbox"/> FAA</td><td><input type="checkbox"/> Germany LBA</td></tr><tr><td><input type="checkbox"/> EASA</td><td><input type="checkbox"/> CAA-NL</td></tr><tr><td><input checked="" type="checkbox"/> Brazil</td><td><input type="checkbox"/> UK CAA</td></tr><tr><td><input type="checkbox"/> Transport Canada Civil Aviation</td><td><input type="checkbox"/> Japan CAB</td></tr><tr><td><input type="checkbox"/> DGAC</td><td><input type="checkbox"/> CAA of Israel</td></tr><tr><td></td><td><input type="checkbox"/> Other _____</td></tr></table>			<input type="checkbox"/> FAA	<input type="checkbox"/> Germany LBA	<input type="checkbox"/> EASA	<input type="checkbox"/> CAA-NL	<input checked="" type="checkbox"/> Brazil	<input type="checkbox"/> UK CAA	<input type="checkbox"/> Transport Canada Civil Aviation	<input type="checkbox"/> Japan CAB	<input type="checkbox"/> DGAC	<input type="checkbox"/> CAA of Israel		<input type="checkbox"/> Other _____
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<input type="checkbox"/> DGAC	<input type="checkbox"/> CAA of Israel														
	<input type="checkbox"/> Other _____														
	設計國 AD 編號 Original AD number	2020-06-02R02													

	<p>1. 直接採用原 AD 之內容?(Is the original AD directly adopted?)  <input checked="" type="checkbox"/>是(Yes) <input type="checkbox"/>否(No) _</p> <p>a. 生效日期另訂為(Re-specify the effective date as) : _____</p> <p>b. 執行時限另訂為(Re-specify the compliance time or period as) : _____</p> <p><input type="checkbox"/></p> <p>2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do <input type="checkbox"/> Users need to report the status of compliance to the CAA?)  <input type="checkbox"/>是(Yes) <input checked="" type="checkbox"/>否(No)</p>
<p>備註 Note</p>	<p>This AD cancels and supersedes AD N° 2020-06-02R01(CAA-2020-06-008A)</p>
<p>註： 1. AD 內容後附。  2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。  3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：  <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a></p> <p>Note： 1. The AD text is enclosed.  2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval.  3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail：  <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a></p>	

CAA Form ACS-P08-02

第一頁/共一頁



**AGÊNCIA NACIONAL DE AVIAÇÃO CIVIL - BRAZIL**

## **BRAZILIAN AIRWORTHINESS DIRECTIVE**

**AD No.: 2020-06-02R02**

**Effective Date: 30 Nov. 2020**

The following Brazilian Airworthiness Directive (AD), issued by the Agência Nacional de Aviação Civil (ANAC) in accordance with provisions of Chapter IV, Title III of Código Brasileiro de Aeronáutica - Law No. 7,565 dated 19 December 1986 - and Regulamento Brasileiro da Aviação Civil (RBAC) 39, applies to all aircraft registered in the Registro Aeronáutico Brasileiro. No person may operate an aircraft to which this AD applies, unless it has previously complied with the requirements established herein.

### **AD No. 2020-06-02R02 - YABORÃ / 39-1472.**

#### **APPLICABILITY:**

(a) This Airworthiness Directive (AD) is applicable to Yaborã Indústria Aeronáutica S.A. airplanes, as specified in paragraphs (a)(1), (a)(2), (a)(3), (a)(4), (a)(5) and (a)(6) of this AD.

(1) Model ERJ 190-100 STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-100 SR, ERJ 190-200 STD, ERJ 190-200LR, and ERJ 190-200IGW airplanes, as identified in Embraer Service Bulletin 190-54-0015, original issue, dated July 03, 2014.

(2) Model ERJ 190-100 STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-100 SR, ERJ 190-200 STD, ERJ 190-200LR, and ERJ 190-200IGW airplanes, as identified in Embraer Service Bulletin 190-54-0015, revision 03, dated February 04, 2019.

(3) Model ERJ 190-100STD, ERJ 190-100 LR, ERJ 190-100 IGW, ERJ 190-100 SR, ERJ 190-200STD, ERJ 190-200 LR, and ERJ 190-200 IGW airplanes, as identified in Embraer Service Bulletin 190-54-0016, Revision 2, dated September 12, 2016,

(4) Model ERJ190-100 ECJ airplanes, as identified in Embraer Service Bulletin 190LIN-54-006, original issue, dated July 03, 2014.

(5) Model ERJ190-100 ECJ airplanes, as identified in Embraer Service Bulletin 190LIN-54-006, revision 03, dated July 17, 2019.

(6) Model ERJ 190-100 ECJ airplanes, as identified in Embraer Service Bulletin 190LIN-54-0008, dated October 2, 2015

#### **CANCELLATION / REVISION:**

AD N° 2020-06-02 – YABORÃ / 39-1464 cancels and supersedes AD N° 2014-07-01 – Embraer S.A./39-1384, dated July 10, 2014, and AD N° 2017-04-01 – Embraer/39-1413, dated April 25, 2017 and was issued to reduce the torque to be applied to the castellated nuts of the external shear pins, to include the inspection of the external shear pin and the replacement of the external shear pins, if

applicable, and to change the compliance time specified for the pylon lower link fitting attaching parts modification.

AD N° 2020-06-02R01 – YABORÃ / 39-1467 cancels and supersedes the AD N°. 2020-06-02 – YABORÃ / 39-1464 and was issued to include further revisions approved by the ANAC of the SB 190-54-0016, 190-54-0015 and 190LIN-54-006, to accomplish the AD requirements, and to clarify that actions required by (h), (i), (r) and (s) terminate the requirements of paragraphs (f), (g), (p) and (q) respectively.

This AD cancels and supersedes AD N° 2020-06-02R01 – YABORÃ / 39-1467 and it is being issued to change the compliance time of paragraphs (f), (g), (h) and (i) for Group 3 aircraft, as identified in Embraer SB 190-54-0015, original issue and further revisions approved by the ANAC, and the compliance time of paragraphs (p), (q), (r) and (s) for Group 3 aircraft, as identified in Embraer SB 190LIN-54-0006, original issue and further revisions approved by the ANAC. This revision also updates contact information for the approval of Alternative Methods of Compliance.

### **REASON:**

It has been found the occurrence of cracked nuts and external shear pin with damaged threads during the accomplishment of the re-torques presented in the Service Bulletin 190-54-0015 revision 02 and previous versions. The inadequate torque application may result in the loss of the shear pins of the pylon outboard and inboard lower link fittings, which could lead to separation of the engine from the wing. It has been found also the need to change the compliance time specified for the pylon lower link fitting attaching parts modification to prevent loss of integrity of the engine pylon lower link fittings, which could result in separation of the engine from the wing

Since this condition may occur in other aircraft of the same type and affects flight safety, a corrective action is required. Thus, sufficient reason exists to request compliance with this AD in the indicated time limit.

### **REQUIRED ACTION:**

To replace the LH and RH pylon lower link fitting inboard and outboard attaching parts; to apply the necessary re-torque to the LH and RH pylon lower link fitting inboard and outboard assembly; to perform a detailed inspection on the external shear pins of the LH and RH pylon lower link fitting inboards and outboards attaching parts and to replace the external shear pins, if applicable; and to modify the attaching parts of the LH RH pylon lower link fittings, inboard and outboard positions.

### **COMPLIANCE:**

Do the actions required by this AD within the compliance times specified, unless the actions have already been done.

### **Part I – AD 2014-07-01 Retained Requirements (Airplanes identified in Embraer ASB 190-54-A015)**

#### **(b) Retained re-torque of the LH lower inboard and outboard link fitting**

For Group 1 airplanes that have incorporated Embraer Service Bulletin (SB) 190-54-0013, and Group 2 airplanes, as identified in Embraer ASB 190-54-A015, revision 3, dated June 27, 2014: Within the applicable compliance time specified in paragraph E (1), "Compliance", of Embraer ASB 190-54-A015, revision 3, dated June 27, 2014, after June 27, 2014, the effective date of EAD 2014-06-02, re-torque the LH lower inboard and outboard link fitting in accordance with Part I of the Accomplishment Instructions of Embraer ASB 190-54-A015, revision 3, dated June 27, 2014.

#### **(c) Retained re-torque of the RH lower inboard and outboard link fitting**

For Group 1 airplanes that have incorporated Embraer Service Bulletin (SB) 190-54-0013, and Group 2 airplanes, as identified in Embraer ASB 190-54-A015, revision 3, dated June 27, 2014: Within the applicable compliance time specified in paragraph E(2), "Compliance", of Embraer ASB 190-54-A015, revision 3, dated June 27, 2014, after June 27, 2014, the effective date of EAD 2014-06-02, re-

torque the RH lower inboard and outboard link fitting in accordance with Part II of the Accomplishment Instructions of Embraer ASB 190-54-A015, revision 3, dated June 27, 2014.

**Part II – AD 2014-07-01 Retained Requirements (Airplanes identified in Embraer SB 190-54-0015, original issue)**

**(d) Retained replacement of the LH lower inboard and outboard link fitting attaching parts**

For group 1 airplanes that have incorporated Embraer SB 190-54-0013, and Group 2 airplanes, as identified in Embraer SB 190-54-0015, original issue, dated July 03, 2014: Within 150 flight cycles or 200 flight hours, whichever occurs first, after July 03, 2014, replace the LH lower inboard and outboard link fitting attaching parts in accordance with Part I of the Accomplishment Instructions of Embraer SB 190-54-0015, original issue, dated July 03, 2014, or further revisions approved by the ANAC.

**(e) Retained replacement of the RH lower inboard and outboard link fitting attaching parts**

For group 1 airplanes that have incorporated Embraer SB 190-54-0013, and Group 2 airplanes, as identified in Embraer SB 190-54-0015, original issue, dated July 03, 2014: Within 150 flight cycles or 200 flight hours, whichever occurs first, after July 03, 2014, replace the RH lower inboard and outboard link fitting attaching parts in accordance with Part II of the Accomplishment Instructions of Embraer SB 190-54-0015, original issue, dated July 03, 2014, or further revisions approved by the ANAC.

**(f) Retained re-torque of the LH lower inboard and outboard link fitting attaching parts**

(1) For group 1 airplanes, that have incorporated Embraer SB 190-54-0013, and Group 2 airplanes, as identified in Embraer SB 190-54-0015, original issue, dated July 03, 2014: Within 6000 flight cycles or 7500 flight hours, whichever occurs first, after compliance with the replacement of the LH lower inboard and outboard link fitting attaching parts addressed on paragraph (d) of this AD, re-torque the LH lower inboard and outboard link fitting attaching parts in accordance with Part III of the Accomplishment Instructions of Embraer SB 190-54-0015, original issue, dated July 03, 2014. Repeat the action required by this paragraph thereafter at intervals not to exceed 6000 flight cycles or 7500 flight hours, whichever occurs first.

(2) For group 3 airplanes, that have not incorporated Embraer SB 190-54-0013, as identified in Embraer SB 190-54-0015, original issue, dated July 03, 2014: Within 6000 flight cycles or 7500 flight hours, whichever occurs first, after July 03, 2014, re-torque the LH lower inboard and outboard link fitting attaching parts in accordance with Part III of the Accomplishment Instructions of Embraer SB 190-54-0015, original issue, dated July 03, 2014. Repeat the action required by this paragraph thereafter at intervals not to exceed 6000 flight cycles or 7500 flight hours, whichever occurs first.

**(g) Retained re-torque of the RH lower inboard and outboard link fitting attaching parts**

(1) For group 1 airplanes, that have incorporated Embraer SB 190-54-0013, and Group 2 airplanes, as identified in Embraer SB 190-54-0015, original issue, dated July 03, 2014: Within 6000 flight cycles or 7500 flight hours, whichever occurs first, after compliance with the replacement of the RH lower inboard and outboard link fitting attaching parts addressed on paragraph (e) of this AD, re-torque the RH lower inboard and outboard link fitting attaching parts in accordance with Part IV of the Accomplishment Instructions of Embraer SB 190-54-0015, original issue, dated July 03, 2014. Repeat the action required by this paragraph thereafter at intervals not to exceed 6000 flight cycles or 7500 flight hours, whichever occurs first.

(2) For group 3 airplanes, that have not incorporated Embraer SB 190-54-0013, as

identified in Embraer SB 190-54-0015, original issue, dated July 03, 2014: Within 6000 flight cycles or 7500 flight hours, whichever occurs first, after July 03, 2014, re-torque the RH lower inboard and outboard link fitting attaching parts in accordance with Part IV of the Accomplishment Instructions of Embraer SB 190-54-0015, original issue, dated July 03, 2014. Repeat the action required by this paragraph thereafter at intervals not to exceed 6000 flight cycles or 7500 flight hours, whichever occurs first.

**Part III - New requirements of this AD (Airplanes identified in Embraer SB 190-54-0015, revision 03)**

**(h) Re-torque and inspection of the LH lower inboard and outboard link fitting attaching parts**

(1) For group 1 airplanes, that have incorporated Embraer SB 190-54-0013, and Group 2, as identified in Embraer SB 190-54-0015, revision 03, dated February 04, 2019: Within 6000 flight cycles or 7500 flight hours, whichever occurs first, after compliance with the replacement of the LH lower inboard and outboard link fitting attaching parts addressed on paragraph (d) of this AD or within the interval for the repeated action required in paragraph (f)(1) for airplanes that already complied with the re-torque required by paragraph (f)(1), re-torque the LH lower inboard and outboard link fitting attaching parts and inspect the external shear pins, in accordance with Part III of the Accomplishment Instructions of Embraer SB 190-54-0015, revision 03, dated February 04, 2019 or further revisions approved by the ANAC. Repeat the action required by this paragraph thereafter at intervals not to exceed 6000 flight cycles or 7500 flight hours, whichever occurs first.

(2) For group 3 airplanes, that have not incorporated Embraer SB 190-54-0013, as identified in Embraer SB 190-54-0015, revision 03, dated February 04, 2019: Within 6000 flight cycles or 7500 flight hours, whichever occurs first, after July 03, 2014 or within the interval for the repeated action required in paragraph (f)(2) for airplanes that already complied with the re-torque required by paragraph (f)(2), re-torque the LH lower inboard and outboard link fitting attaching parts and inspect the external shear pins, in accordance with Part III of the Accomplishment Instructions of Embraer SB 190-54-0015, revision 03, dated February 04, 2019 or further revisions approved by the ANAC. Repeat the action required by this paragraph thereafter at intervals not to exceed 6000 flight cycles or 7500 flight hours, whichever occurs first

(3) If any damage is found during the accomplishment of the paragraph (h)(1) or (h)(2), replace immediately the applicable external shear pin, in accordance with Part V of the Accomplishment Instructions of Embraer SB 190-54-0015, revision 03, dated February 04, 2019 or further revisions approved by the ANAC.

(4) Actions required by this paragraph terminate the requirements of paragraph (f).

**(i) Re-torque and inspection of the RH lower inboard and outboard link fitting attaching parts**

(1) For group 1 airplanes, that have incorporated Embraer SB 190-54-0013, and Group 2, as identified in Embraer SB 190-54-0015, revision 03, dated February 04, 2019: Within 6000 flight cycles or 7500 flight hours, whichever occurs first, after compliance with the replacement of the RH lower inboard and outboard link fitting attaching parts addressed on paragraph (e) of this AD or within the interval for the repeated action required in paragraph (g)(1) for airplanes that already complied with the re-torque required by paragraph (g)(1), re-torque the RH lower inboard and outboard link fitting attaching parts and inspect the external shear pins, in accordance with Part IV of the Accomplishment Instructions of Embraer SB 190-54-0015, revision 03, dated February 04, 2019 or further revisions approved by the ANAC. Repeat the action required by this paragraph thereafter at intervals not to exceed 6000 flight cycles or 7500 flight hours, whichever occurs first.

(2) For group 3 airplanes, that have not incorporated Embraer SB 190-54-0013, as identified in Embraer SB 190-54-0015, revision 03, dated February 04, 2019: Within 6000 flight cycles or 7500 flight hours, whichever occurs first, after July 03, 2014, or within the interval for the repeated action required in paragraph (g)(2) for airplanes that already complied with the re-torque required by paragraph

(g)(2), re-torque the RH lower inboard and outboard link fitting attaching parts and inspect the external shear pins, in accordance with Part IV of the Accomplishment Instructions of Embraer SB 190-54-0015, revision 03, dated February 04, 2019 or further revisions approved by the ANAC. Repeat the action required by this paragraph thereafter at intervals not to exceed 6000 flight cycles or 7500 flight hours, whichever occurs first

(3) If any damage is found during the accomplishment of the paragraph (i)(1) or (i)(2), replace immediately the applicable external shear pin, in accordance with Part V of the Accomplishment Instructions of Embraer SB 190-54-0015, revision 03, dated February 04, 2019 or further revisions approved by the ANAC.

(4) Actions required by this paragraph terminate the requirements of paragraph (g).

#### **Part IV- New requirements of this AD (Airplanes identified in Embraer SB 190-54-0016)**

##### **(j) LH pylon lower link fitting attaching parts modification**

(1) For airplanes identified in Group 1 of Embraer Service Bulletin 190-54-0016, Revision 2, dated September 12, 2016, or later revisions: Within 15000 flight hours after April 25, 2017, effective date of AD 2017-04-01, or 48 months after June 16, 2020, effective date of AD 2020-06-02, whichever occurs first, replace the plain bushings of the lower inboard and outboard link fittings, install the lock washers with the L-profile on the fuse pin's head side, and replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with PART I of the Accomplishment Instructions of Embraer Service Bulletin 190-54-0016, Revision 2, dated September 12, 2016 or further revisions approved by the ANAC.

(2) For airplanes identified in Group 2 of Embraer Service Bulletin 190-54-0016, Revision 2, dated September 12, 2016: Within 15000 flight hours after April 25, 2017, effective date of AD 2017-04-01, or 48 months after June 16, 2020, effective date of AD 2020-06-02, whichever occurs first, replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with PART I of the Accomplishment Instructions of Embraer Service Bulletin 190-54-0016, Revision 2, dated September 12, 2016 or further revisions approved by the ANAC.

(3) Accomplishing the actions required by paragraph (j)(1) or (j)(2) of this AD, as applicable, terminates the requirements of paragraphs (b), (d), (f) and (h) of this AD.

##### **(k) RH pylon lower link fitting attaching parts modification**

(1) For airplanes identified in Group 1 of Embraer Service Bulletin 190-54-0016, Revision 2, dated September 12, 2016, or later revisions: Within 15000 flight hours after April 25, 2017, effective date of AD 2017-04-01, or 48 months after June 16, 2020, effective date of AD 2020-06-02, whichever occurs first, replace the plain bushings of the lower inboard and outboard link fittings, install the lock washers with the L-profile on the fuse pin's head side, and replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with PART II of the Accomplishment Instructions of Embraer Service Bulletin 190-54-0016, Revision 2, dated September 12, 2016 or further revisions approved by the ANAC.

(2) For airplanes identified in Group 2 of Embraer Service Bulletin 190-54-0016, Revision 2, dated September 12, 2016: Within 15000 flight hours after April 25, 2017, effective date of AD 2017-04-01, or 48 months after June 16, 2020, effective date of AD 2020-06-02, whichever occurs first, replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with PART II of the Accomplishment Instructions of Embraer Service Bulletin 190-54-0016, Revision 2, dated September 12, 2016 or further revisions approved by the ANAC.

(3) Accomplishing the actions required by paragraph (k)(1) or (k)(2) of this AD, as applicable, terminates the requirements of paragraphs (c), (e), (g) and (i) of this AD.

#### **Part V - AD 2014-07-01 Retained Requirements (Airplanes identified in Embraer ASB 190LIN-54-A006)**

**(l) Retained re-torque of the LH lower inboard and outboard link fitting**

For Group 1 airplanes that have incorporated Embraer Service Bulletin (SB) 190LIN-54-0004, and Group 2 airplanes, as identified in Embraer ASB 190LIN-54-A006, revision 2, dated June 27, 2014,: Within the applicable compliance time specified in paragraph E(1), "Compliance", of Embraer 190LIN-54-A006, revision 2, dated June 27, 2014, after June 27, 2014, the effective date of EAD 2014-06-02, re-torque the LH lower inboard and outboard link fitting in accordance with Part I of the Accomplishment Instructions of Embraer ASB 190LIN-54-A006, revision 2, dated June 27, 2014.

**(m) Retained re-torque of the RH lower inboard and outboard link fitting**

For Group 1 airplanes that have incorporated Embraer Service Bulletin (SB) 190LIN-54-0004, and Group 2 airplanes, as identified in Embraer ASB 190LIN-54-A006, revision 2, dated June 27, 2014,: Within the applicable compliance time specified in paragraph E(2), "Compliance", of Embraer ASB 190LIN-54-A006, revision 2, dated June 27, 2014, after June 27, 2014, the effective date of EAD 2014-06-02, re-torque the RH lower inboard and outboard link fitting in accordance with Part II of the Accomplishment Instructions of Embraer ASB 190LIN-54-A006, revision 2, dated June 27, 2014.

**Part VI - AD 2014-07-01 Retained Requirements (Airplanes identified in Embraer SB 190LIN-54-0006, original issue)**

**(n) Retained replacement of the LH lower inboard and outboard link fitting attaching parts**

For group 1 airplanes that have incorporated Embraer SB 190LIN-54-0004, and Group 2 airplanes, as identified in Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014: Within 60 flight cycles or 200 flight hours, whichever occurs first, after July 03, 2014, replace the LH lower inboard and outboard link fitting attaching parts in accordance with Part I of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014, or further revisions approved by the ANAC.

**(o) Retained replacement of the RH lower inboard and outboard link fitting attaching parts**

For group 1 airplanes that have incorporated Embraer SB 190LIN-54-0004, and Group 2 airplanes, as identified in Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014: Within 60 flight cycles or 200 flight hours, whichever occurs first, after July 03, 2014, replace the RH lower inboard and outboard link fitting attaching parts in accordance with Part II of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014, or further revisions approved by the ANAC.

**(p) Retained re-torque of the LH lower inboard and outboard link fitting attaching parts**

(1) For group 1 airplanes, that have incorporated Embraer SB 190LIN-54-0004, and Group 2 airplanes, as identified in Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014: Within 2000 flight cycles or 7500 flight hours, whichever occurs first, after compliance with the replacement of the LH lower inboard and outboard link fitting attaching parts addressed on paragraph (n) of this AD, re-torque the LH lower inboard and outboard link fitting attaching parts in accordance with Part III of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014. Repeat the action required by this paragraph thereafter at intervals not to exceed 2000 flight cycles or 7500 flight hours, whichever occurs first.

(2) For groups 3 airplanes, that have not incorporated Embraer SB 190LIN-54-0004, as identified in Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014: Within 2000 flight cycles or 7500 flight hours, whichever occurs first, after July 03, 2014, re-torque the LH lower inboard and outboard link fitting attaching parts in accordance with Part III of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014. Repeat the action required by this paragraph thereafter at intervals not to exceed 2000 flight cycles or 7500 flight hours, whichever occurs



first.

**(q) Retained re-torque of the RH lower inboard and outboard link fitting attaching parts**

(1) For group 1 airplanes, that have incorporated Embraer SB 190LIN-54-0004, and Group 2 airplanes, as identified in Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014: Within 2000 flight cycles or 7500 flight hours, whichever occurs first, after compliance with the replacement of the RH lower inboard and outboard link fitting attaching parts addressed on paragraph (o) of this AD, re-torque the RH lower inboard and outboard link fitting attaching parts in accordance with Part IV of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014. Repeat the action required by this paragraph thereafter at intervals not to exceed 2000 flight cycles or 7500 flight hours, whichever occurs first.

(2) For groups 3 airplanes, that have not incorporated Embraer SB 190LIN-54-0004, as identified in Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014: Within 2000 flight cycles or 7500 flight hours, whichever occurs first, after July 03, 2014, re-torque the RH lower inboard and outboard link fitting attaching parts in accordance with Part IV of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, original issue, dated July 03, 2014. Repeat the action required by this paragraph thereafter at intervals not to exceed 2000 flight cycles or 7500 flight hours, whichever occurs first.

**Part VII - New requirements of this AD (Airplanes identified in Embraer SB 190LIN-54-0006, revision 03)**

**(r) Re-torque and inspection of the LH lower inboard and outboard link fitting attaching parts**

(1) For group 1 airplanes, that have incorporated Embraer SB 190LIN-54-0004, and Group 2 airplanes, as identified in Embraer SB 190LIN-54-0006, revision 03, dated July 17, 2019: Within 2000 flight cycles or 7500 flight hours, whichever occurs first, after compliance with the replacement of the LH lower inboard and outboard link fitting attaching parts addressed on paragraph (n) of this AD or within the interval for the repeated action required in paragraph (p)(1) for airplanes that already complied with the re-torque required by paragraph (p)(1), re-torque the LH lower inboard and outboard link fitting attaching parts and inspect the external shear pins, in accordance with Part III of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, revision 03, dated July 17, 2019 or further revisions approved by the ANAC. Repeat the action required by this paragraph thereafter at intervals not to exceed 2000 flight cycles or 7500 flight hours, whichever occurs first.

(2) For groups 3 airplanes, that have not incorporated Embraer SB 190LIN-54-0004, as identified in Embraer SB 190LIN-54-0006, revision 03, dated July 17, 2019: Within 2000 flight cycles or 7500 flight hours, whichever occurs first, after July 03, 2014 or within the interval for the repeated action required in paragraph (p)(2) for airplanes that already complied with the re-torque required by paragraph (p)(2), re-torque the LH lower inboard and outboard link fitting attaching parts and inspect the external shear pins, in accordance with Part III of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, revision 03, dated July 17, 2019 or further revisions approved by the ANAC. Repeat the action required by this paragraph thereafter at intervals not to exceed 2000 flight cycles or 7500 flight hours, whichever occurs first.

(3) If any damage is found during the accomplishment of the paragraph (r)(1) or (r)(2), replace immediately the applicable external shear pin, in accordance with Part V of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, revision 03, dated July 17, 2019 or further revisions approved by the ANAC.

(4) Actions required by this paragraph terminate the requirements of paragraph (p)

**(s) Re-torque and inspection of the RH lower inboard and outboard link fitting attaching parts**

(1) For group 1 airplanes, that have incorporated Embraer SB 190LIN-54-0004, and

Group 2 airplanes, as identified in Embraer SB 190LIN-54-0006, revision 03, dated July 17, 2019: Within 2000 flight cycles or 7500 flight hours, whichever occurs first, after compliance with the replacement of the RH lower inboard and outboard link fitting attaching parts addressed on paragraph (o) of this AD or within the interval for the repeated action required in paragraph (q)(1) for airplanes that already complied with the re-torque required by paragraph (q)(1), re-torque the RH lower inboard and outboard link fitting attaching parts and inspect the external shear pins, in accordance with Part IV of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, revision 03, dated July 17, 2019 or further revisions approved by the ANAC. Repeat the action required by this paragraph thereafter at intervals not to exceed 2000 flight cycles or 7500 flight hours, whichever occurs first.

(2) For groups 3 airplanes, that have not incorporated Embraer SB 190LIN-54-0004, as identified in Embraer SB 190LIN-54-0006, revision 03, dated July 17, 2019: Within 2000 flight cycles or 7500 flight hours, whichever occurs first, after July 03, 2014 or within the interval for the repeated action required in paragraph (q)(2) for airplanes that already complied with the re-torque required by paragraph (q)(2), re-torque the RH lower inboard and outboard link fitting attaching parts and inspect the external shear pins, in accordance with Part IV of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, revision 03, dated July 17, 2019 or further revisions approved by the ANAC. Repeat the action required by this paragraph thereafter at intervals not to exceed 2000 flight cycles or 7500 flight hours, whichever occurs first.

(3) If any damage is found during the accomplishment of the paragraph (s)(1) or (s)(2), replace immediately the applicable external shear pin, in accordance with Part V of the Accomplishment Instructions of Embraer SB 190LIN-54-0006, revision 03, dated July 17, 2019 or further revisions approved by the ANAC.

(4) Actions required by this paragraph terminate the requirements of paragraph (q)

**Part VIII – AD 2017-04-01 Retained Requirements (Airplanes identified in Embraer SB 190LIN-54-0008)**

**(t) Retained LH pylon lower link fitting attaching parts modification**

(1) For airplanes identified in Group 1 of Embraer Service Bulletin 190LIN-54-0008, dated October 2, 2015: Within 48 months after April 25, 2017, effective date of AD 2017-04-01, replace the plain bushings of the lower inboard and outboard link fittings, install the lock washers with the L-profile on the fuse pin's head side, and replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with PART I of the Accomplishment Instructions of Embraer Service Bulletin 190LIN-54-0008, dated October 2, 2015 or further revisions approved by the ANAC.

(2) For airplanes identified in Group 2 of Embraer Service Bulletin 190LIN-54-0008, dated October 2, 2015: Within 48 months after April 25, 2017, effective date of AD 2017-04-01, replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with PART I of the Accomplishment Instructions of Embraer Service Bulletin 190LIN-54-0008, dated October 2, 2015 or further revisions approved by the ANAC.

**(u) Retained RH pylon lower link fitting attaching parts modification**

(1) For airplanes identified in Group 1 of Embraer Service Bulletin 190LIN-54-0008, dated October 2, 2015: Within 48 months after April 25, 2017, effective date of AD 2017-04-01, replace the plain bushings of the lower inboard and outboard link fittings, install the lock washers with the L-profile on the fuse pin's head side, and replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with PART II of the Accomplishment Instructions of Embraer Service Bulletin 190LIN-54-0008, dated October 2, 2015 or further revisions approved by the ANAC.

(2) For airplanes identified in Group 2 of Embraer Service Bulletin 190LIN-54-0008, dated October 2, 2015: Within 48 months after April 25, 2017, effective date of AD 2017-04-01, replace the internal shear pin of the fuse pins with new ones having larger head diameter, in accordance with PART II of the Accomplishment Instructions of Embraer Service Bulletin 190LIN-54-0008, dated October 2, 2015 or further revisions approved by the ANAC.

**(v) Final Action**

(1) Accomplishing the actions required by paragraphs (t)(1) or (t)(2) of this AD, as applicable, terminates the requirements of paragraphs (l), (n), (p) and (r) of this AD.

(2) Accomplishing the actions required by paragraph (u)(1) or (u)(2) of this AD, as applicable, terminates the requirements of paragraphs (m), (o), (q) and (s) of this AD.

**Part IX – All airplanes specified in paragraphs (a)(1), (a)(2), (a)(3) and (a)(4) of this AD.**

**(w) Parts installation prohibition**

After July 10, 2014, effective date of the AD 2014-07-01, no person shall incorporate Embraer SB 190-54-0013 and 190LIN-54-0004, as applicable, on any airplane.

**(x) Credit for previous action**

This paragraph provides credit for the actions specified in paragraphs (j)(1), (j)(2), (k)(1) and (k)(2) of this AD, if those actions were performed before the effective date of this AD using Embraer Service Bulletin 190-54-0016, dated September 22, 2015, or Embraer Service Bulletin 190-54-0016, Revision 1, dated January 18, 2016.

**(y) Alternative methods of compliance (AMOCs)**

(1) A different method or a different compliance time, with the requirements of this AD, may be used if approved by the Manager of the Continuing Airworthiness Technical Branch (Gerência Técnica de Aeronavegabilidade Continuada - GTAC).

(2) For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (y)(2)(i) and (y)(2)(ii) of this AD apply.

(i) The steps labeled as RC, including sub steps under an RC step and any figures identified in an RC step, must be done to comply with this AD. An AMOC is required for any deviations to RC steps, including sub steps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including sub steps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

**(z) Material incorporated by reference**

You must use: (1) Embraer SB 190-54-0015, revision 3, dated February 04, 2019; (2) Embraer SB 190-54-0016, revision 02, dated September, 12, 2016; (3) Embraer SB 190LIN-54-0006, revision 3, dated July 17, 2019 or (4) Embraer SB 190LIN-54-0008, original revision, dated October 02, 2015; as applicable, or further revisions approved by the ANAC, to do the actions required by this AD.

**CONTACT:**

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National Civil Aviation Agency (ANAC)

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**APPROVAL:**

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Head of Department  
Department of Airworthiness (SAR)  
ANAC

**NOTE:** Original in Portuguese language signed and available in the files of the Continuing Airworthiness Technical Branch (GTAC) of the Brazilian National Civil Aviation Agency (ANAC)

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