

EASA	AIRWORTHINESS DIRECTIVE	
	AD No.: 2013-0084	
	Date: 05 April 2013 Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.	
This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].		
Design Approval Holder's Name: Piaggio Aero Industries S.p.A.	Type/Model designation(s): P.180 aeroplanes	
TCDS Number:	EASA.A.059	
Foreign AD:	Not applicable	
Supersedure:	None	
ATA 32	Landing Gear - Main Landing Gear Lever Hinge Fitting - Inspection	
Manufacturer(s):	Piaggio Aero Industries S.p.A.	
Applicability:	P.180 Avanti and Avanti II aeroplanes, all serial numbers.	
Reason:	<p>During scheduled maintenance, cracks have been detected at the joint between the hinge pin sub-assembly and the lock pin of the main landing gear (MLG) lever hinge fitting (LHF) of a Piaggio P.180 aeroplane.</p> <p>The results of the subsequent investigation revealed that the cracks were initiated by an unforeseen friction in the MLG wheel lever sub-assembly.</p> <p>This condition, if not detected and corrected, could lead to a structural failure of the MLG, possibly resulting in loss of control of the aeroplane during take-off or landing runs.</p> <p>To address this potential unsafe condition, Piaggio Aero Industries (PAI) issued Service Bulletin (SB) 80-0345 to provide instructions for early identification of cracks in the MLG LHF and, in case of identification of the crack, replacement of MLG.</p> <p>For the reasons described above, this AD requires repetitive inspections of the MLG LHF and, depending on findings, replacement of the MLG.</p> <p>This AD is considered to be an interim action, and based on gathered experience, further AD action may follow.</p>	
Effective Date:	19 April 2013	

Required Action(s)
and Compliance
Time(s):

Required as indicated, unless accomplished previously:

- (1) Within 200 flight cycles (FC) or 3 months, whichever occurs first after the effective date of this AD, and before next flight after each MLG replacement, visually inspect each MLG LHF for cracks and verify freedom of rotation of the MLG wheel lever subassemblies in accordance with the Accomplishment Instructions, Part 1 of PAI SB 80-0345.
- (2) If during the inspection as required by paragraph (1) of this AD, freedom of rotation of the MLG wheel lever subassembly is not assured, before next flight, mark the LHF on the affected MLG as "inspect as per SB-80-0345" with an indelible pen, remove the MLG from the aeroplane for corrective action (see paragraph (9) of this AD) and replace the affected MLG with a serviceable MLG in accordance with the Accomplishment Instructions of PAI SB 80-0345.
- (3) Initially, within the threshold as specified in Table 1 of this AD, as applicable, unless already accomplished within the last 200 FC before the effective date of this AD, and, thereafter, at intervals not to exceed 200 FC, accomplish a detailed visual inspection (DVI) of each LHF in accordance with the Accomplishment Instructions, Part 2 of PAI SB 80-0345.
- (4) Initially, within the threshold as specified in Table 1 of this AD, as applicable, unless already accomplished within the last 750 FC before the effective date of this AD, and, thereafter, at intervals not to exceed 750 FC, accomplish a fluorescent penetrant inspection (FPI) of each LHF in accordance with the Accomplishment Instructions, Part 3 of PAI SB 80-0345.

Table 1 Inspection Threshold

LHF FC accumulated since new on the effective date of this AD	Compliance Time
Equal to or less than 2 300 FC	Before exceeding 2 500 FC since new
More than 2 300 FC but less than 2 500 FC	Within 200 FC after the effective date of this AD
Equal to or more than 2 500 FC	Within 200 FC or 3 months, whichever occurs first after the effective date of this AD

- (5) If, during any inspection as required by paragraph (1) or (3) or (4) or (8) or (9) of this AD, any crack is detected, before next flight replace the MLG with a serviceable part in accordance with Accomplishment Instructions of PAI SB 80-0345.
- (6) Within 30 days after the replacement of MLG, as required by paragraph (2) or (5) of this AD, complete the Confirmation Slip in accordance with PAI SB 80-0345 and send it to Piaggio Aero Industries S.p.A.
- (7) Replacement of a MLG as required by paragraph (2) or (5) of this AD does not constitute terminating action for the repetitive inspections required by this AD.
- (8) For the purpose of this AD a "serviceable" MLG is an airworthy MLG verified before installation for freedom of rotation and which passed the inspections in accordance with paragraphs (3) and (4) of this AD, as applicable, within relevant thresholds and intervals; if pertinent data (i.e. status of periodic DVI and FPI and/or FC since new) cannot be determined from the Authorized Release Certificate of the MLG to be installed, before next flight after installation, accomplish a DVI and FPI of the LHF in accordance with the Instructions of Part 2 and Part 3 of PAI SB 80-0345. Thereafter, perform repetitive DVI and FPI as required, respectively, by

	<p>paragraphs (3) and (4) of this AD.</p> <p>(9) From the effective date of this AD, installation on an aeroplane of a MLG with LHF marked as "inspect as per SB 80-0345" is allowed, provided that, prior to installation, the freedom of rotation of the MLG has been restored in accordance with approved maintenance instruction. Before next flight after installation, accomplish a DVI and FPI of the LHF in accordance with the Instructions of Part 2 and Part 3 of PAI SB 80-0345. Thereafter, perform repetitive DVI and FPI as required, respectively, by paragraphs (3) and (4) of this AD.</p>
Ref. Publications:	<p>PAI SB 80-0345 at original issue, dated 20 September 2012.</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p>
Remarks:	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 27 February 2013 as PAD 13-038 for consultation until 26 March 2013. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: Piaggio Aero Industries S.p.A - Airworthiness Office Via Luigi Cibrario, 4 – 16154 Genova – Italy Telephone: +39 010 6481353 ; Fax: +39 010 6481881 E-mail: airworthiness@piaggioaero.it.

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