Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 21-042

Issued: 16 March 2021

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.
All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:
PIAGGIO AERO INDUSTRIES S.p.A.

Type/Model designation(s):
P.180 aeroplanes

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Number(s): EASA.A.059

Foreign AD: Not applicable

Supersedure: None

ATA 53 – Fuselage – Skin Panels – Inspections

Manufacturer(s):
Piaggio Aero Industries S.p.A. (Piaggio)

Applicability:
Piaggio P.180 Avanti II aeroplanes, manufacturer serial number (MSN) 1174 to 1214 inclusive, and MSN 1218 to 1230 inclusive.

Definitions:
For the purpose of this AD, the following definitions apply:

Affected area: Fuselage lower skin area (outer and inner side), as defined in the SB.

The SB: Piaggio Service Bulletin (SB) 80-0405.

Groups: Group 1 aeroplanes are those on which the "3 600 flight hour (FH) inspection" or "5 year inspection" as defined in the Piaggio P.180 Airplane Maintenance Manual (AMM), as applicable, was not accomplished within 12 months before the effective date of this AD. Group 2 aeroplanes are those on which that inspection was accomplished within 12 months before the effective date of this AD.

Reason:

Occurrences were reported where, during routine inspections, diffused corrosion was detected on the fuselage inner side skin in the aera of the passenger cabin. Evidence indicates that the presence of undetected (infiltrated or condensed) water, trapped in between the inner surface of fuselage skin panels and the thermo acoustic insulation panels, could have started a galvanic corrosion phenomenon, mainly in the bottom fuselage area of the cabin compartment. Fuselage skin panels of certain aeroplanes, delivered from 2009 to 2013, were treated with the first type of "chromate-free" primer, chemically not as effective against corrosion when compared to those containing chrome. The phenomenon has been observed on aeroplanes subjected to prolonged inactivity and not stored in a hangar, or those operating in an environment with high humidity and/or frequent heavy precipitation, combined with a possible deterioration of window sealing due to normal aging, wear and tear.

This condition, if not corrected, could affect the structural integrity of the fuselage.

To address this potential unsafe condition, Piaggio published the SB to provide inspection instructions.

For the reason described above, this AD requires repetitive inspections of each affected area and, if necessary, an additional visual inspection of the entire fuselage inner side skin and, depending on findings, accomplishment of applicable repair. This AD also requires reporting the inspection results to Piaggio.

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

Required as indicated, unless accomplished previously:

Inspection(s):

(1) Within the compliance time defined in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 660 FH or 26 months, whichever occur first, inspect each affected area in accordance with the instructions of Part A, or Part A (Alternate procedure), of the SB.

Table 1 – Fuselage Skin Inspection (see Note 1 of this AD)

Group	**Compliance Time** (after the effective date of this AD)
1	Within 8 months
2	Within 12 months

Note 1: The inspections do not have to be accomplished concurrently on all affected areas of an aeroplane.

(2) If, during any inspection as required by paragraph (1) of this AD, any corrosion is detected, as defined in the SB, before next flight, accomplish a visual inspection of the full inner fuselage skin in accordance with the instructions of Part B of the SB.

Corrective Action(s):

(3) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, any corrosion is detected on the inner fuselage skin, before next flight, repair the affected area in

accordance with the instructions of the SB, or replace the affected fuselage skin panel(s) in accordance with approved Piaggio maintenance instructions.

Credit:

(4) Inspection of the fuselage inner skin on an aeroplane, accomplished before the effective date of this AD in accordance with the instructions of the Temporary Revision (TR) 332 to Chapter 53-00-00 of Piaggio P.180 AMM 180-MAN-0200-01105 Issue F0, is an acceptable method to comply with the initial requirements of paragraph (1) of this AD for that aeroplane.

Terminating Action(s):

(5) Inspection of each affected area on an aeroplane, as required by paragraph (1) of this AD, without finding corrosion or primer inconsistencies (as defined in the SB), constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.

(6) Repair of individual areas of the fuselage skin on an aeroplane, as required by paragraph (3) of this AD, does not constitute terminating action for the repetitive inspections as required by paragraph (1) of this AD for that affected area on that aeroplane.

(7) Replacement on an aeroplane of lower fuselage skin panels Part Number (P/N) 80-191302-005 and P/N 80-191302-005 -007 (for P.180 Avanti II aeroplanes MSN 1174 to 1214 inclusive), or P/N 80-191302-009 and P/N 80-191302-011 (for P.180 Avanti II aeroplanes MSN 1219 to 1230 inclusive), as applicable, with new panels (never installed), constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.

Reporting:

(8) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, any corrosion is detected, within 60 days after that inspection, report the inspection result to Piaggio. Using the 'Confirmation Slip' provided in the SB is an acceptable method to comply with this reporting requirement.

Ref. Publications:

PAI SB 80-0405 original issue dated 15 March 2021.

PAI TR 332 to Chapter 53-00-00 to P180 Avanti II AMM 180-MAN-0200-01105, Issue F0 dated 15 November 2019.

The use of later approved revisions of the above-mentioned documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. This Proposed AD will be closed for consultation on 13 April 2021.

2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the EU aviation safety reporting system. This may include reporting on the same or similar components, other than those covered by the design to which this PAD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.

4. For any question concerning the technical content of the requirements in this PAD, please contact: Piaggio Aero Industries, P180 Customer Support, Via Pionieri e Aviatori d'Italia 2, 16154 Genoa, Italy, Fax: + 39 010 099 8400, E-mail: technicalsupport@piaggioaerospace.it.