EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2014-0013 **Date: 13 January 2014** 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:	**Type/Model designation(s):**
PIAGGIO AERO INDUSTRIES S.p.A.	P.180 Avanti and Avanti II aeroplanes and P.166 aeroplanes

TCDS Number:	EASA.A.059, EASA.A.384
Foreign AD:	Not applicable
Supersedure:	This AD supersedes EASA AD 2010-0226 dated 29 October 2010.

ATA 61	**Propellers – Blades – Inspection / Repair**
Manufacturer(s):	Piaggio Aero Industries S.p.A (PAI)
Applicability:	Piaggio P.180 Avanti and P.180 Avanti II aeroplanes, all serial numbers and Piaggio P.166 DL3 and P.166 DP1 aeroplanes, all serial numbers.
Reason:	Piaggio P.180 and P.166 aeroplanes are equipped with pusher propellers. Service history of this propeller configuration revealed propeller blade susceptibility to erosion and corrosion due to blade exposition to hot exhaust gasses discharged by the aeroplane engines. This condition, if not detected and corrected, could lead to reduced structural strength of the propeller blade, resulting in release of the propeller, or a major portion of the propeller, and reduced control of the aeroplane. To address this potential unsafe condition, ENAC Italy (formerly RAI) issued AD PA 93-369 on Piaggio P.180 aeroplanes, requiring accomplishment of PAI Service Bulletin (SB) No. SB-80/HZ-0001 Revision 2, which referred to Hartzell Propeller Inc. (Hartzell) SB No. 181 for accomplishment instruction details. After that RAI AD was issued, Hartzell issued SB HC-SB-61-181A Revision 3, and EASA issued AD 2010-0226, which superseded RAI AD PA 93-369, to require repetitive inspections for blade corrosion or paint erosion, and depending on finding corrective action, in accordance with those updated accomplishment instructions. Since EASA AD 2010-0226 was issued, Hartzell issued SB HC-SB-61-181A Revision 5 to incorporate updated information about approved paint types and mixes which are used in the process of blade paint restoration.

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	For the reasons described above, this AD retains the requirements of EASA AD 2010-0226, which is superseded, but requires the actions to be accomplished in accordance with updated accomplishment instructions.
Effective Date:	27 January 2014
Required Action(s) and Compliance Time(s):	Required as indicated, unless already accomplished: (1) From 12 November 2010 [the effective date of AD 2010-0226], within 3 days after any flight, accomplish a propeller blade cleaning in accordance with the instructions of paragraph 3.A of Hartzell SB No. HC-SB-61-181A Revision 5. (2) Within 150 flight hours (FH) or 12 months after 12 November 2010 [the effective date of AD 2010-0226], whichever occurs first, and thereafter, at intervals not to exceed 150 FH or 12 months, whichever occurs first, inspect each propeller blade for blade corrosion and paint erosion in accordance with the instructions of paragraph 3.B of Hartzell SB No. HC-SB-61-181A Revision 5. Note 1: A non-cumulative tolerance of 10% may be applied to the compliance times specified in paragraph (2) of this AD to allow synchronization of the required inspections with other required maintenance tasks for which a non-cumulative tolerance is already granted in the applicable PAI Maintenance Manual. (3) If, during any inspection as required by paragraph (2) of this AD, a light or moderate (as defined in Hartzell SB No. HC-SB-61-181A Revision 5) blade corrosion or paint erosion is detected, before next flight, repair the propeller blade in accordance with the instructions of paragraph 3.C of Hartzell SB No. HC-SB-61-181A Revision 5. (4) If, during any inspection as required by paragraph (2) of this AD, severe (as defined in Note 2 of this AD) corrosion is detected, before next flight, repair the propeller blade in accordance with the instructions of paragraph 3.D of Hartzell SB No. HC-SB-61-181A Revision 5. Note 2: For the purpose of this AD, corrosion is considered to be severe if it covers a large area such that metal removal beyond 0.12 mm (0.005 inch) depth over 19.35 square cm (3.0 square inches) is necessary, or if there are numerous localized corrosion pits deeper than 0.25 mm (0.010 inch). (5) If, during any inspection as required by paragraph (2) of this AD, any blade corrosion or paint erosion is detected, within 30 days after accomplishment of the inspection, report the finding(s) to PAI and Hartzell. (6) Inspections and corrective actions, accomplished before the effective date of this AD in accordance with the instructions of Hartzell SB No. HC-SB-61-181A Revision 3 (only), are considered acceptable to comply with the initial requirements of paragraphs (1) and (2) of this AD. (7) Repair of a propeller blade as required by paragraph (3) or (4) of this AD, as applicable, does not constitute terminating action for repetitive inspections required by this AD for that propeller. Note 3: The blade cleaning required by paragraph (1) of this AD may be performed by appropriately trained and authorized flight crew members in accordance with Part 145 provisions.
Ref. Publications:	Hartzell Propeller SB No. HC-SB-61-181A Revision 3 dated 15 June 2010 and Revision 5 dated 03 September 2013. The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.

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Remarks:	1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 19 November 2013 as PAD 13-169 for consultation until 17 December 2013. The Comment Response Document can be found at http://ad.easa.europa.eu. 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 Phone: +39 010 6481353 ; Fax: +39 010 6481881 E-mail: airworthiness@piaggioaero.it, or contact: Hartzell Propeller Inc. One Propeller Place Piqua, OH 45377 - USA Phone: +1-937-778-4200 ; Fax: +1-937-778-4391 E-mail: techsupport@hartzellprop.com.

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