## **EASA** AIRWORTHINESS DIRECTIVE AD No: 2007-0171 Date: 19 July 2007 [Corrected 27 July 2007] No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry. Type/Model designation(s): Type Approval Holder's Name: DR300, DR400, HR100/200, HR100/200B, APEX AIRCRAFT HR100/210, HR100/210D and R1000 TCDS Number: DGAC N° 121 and 131 Foreign AD Nr: None Supersedure: DGAC F-1983-206(A)R3 Nose Landing Gear - Support plate of oleo outer cylinder -**ATA 32** Inspection/Repair CENTRE ST AERONAUTIQUE. **AVIONS** PIERRE ROBIN. CONSTRUCTIONS AERONAUTIQUES DE BOURGOGNE (CAB), APEX Manufacturer: INDUSTRIES. Applicability: All HR100/210, HR100/210D, R1180T and R1180TD. All HR100/200, HR100/200B, DR300 and DR400 equipped with "Avions Robin" nose landing gear. ("Avions Robin" nose gears are fitted with drop forged links unlike "SAB" nose gears which are fitted with welded assembly torque links.) Reason: This AD is prompted by reports of cracks found on the lower plate and its welding to the oleo outer cylinder and in service incidents as a result of a fatigue failure of the upper plate. These cracks could lead to the nose landing gear collapsed if they are not detected. This AD supersedes DGAC-F AD F-1983-206(A)R3. This AD is based on the revision 5 of the Apex SB n°101 according to the AAIB Safety Recommandation 2004-87. It requires repetitive inspections of the nose landing gear upper plate in addition to the previous repetitive inspections of the nose landing gear lower plate and its welding to the oleo outer cylinder to detect crack. This AD has been republished to correct a typographical error within the

paragraph Applicablility.

Effective Date:	01 August 2007
Compliance:	The following measures are rendered mandatory from the effective date of this AD.
	1 – <u>Lower support plate :</u>
	• If the lower support plate width is equal or more than 84mm, at the next 500 hours maintenance inspection perform a dye penetrant inspection on the lower support plate and its welding to the strut according to the APEX SB n°101 (areas 3 and 4 of fig 2 of the service bulletin in reference).
	• If the lower support plate width is less than 84mm at the next 100 hours maintenance inspection perform a dye penetrant inspection on the lower support plate and its welding to the strut according to the APEX SB n°101 (areas 3 and 4 of fig 2 of the service bulletin in reference).
	If a crack is found in the lower (area 3 of fig 2 of the service bulletin in reference) support plate, before next flight, the aircraft must be repaired according to an approved repair method.
	If a crack is found in the lower support plate welding to the strut (area 4 of fig 2 of the service bulletin in reference) proceed with the following:
	If the crack runs along the circumference and is less than 15 mm and/or if the crack is radial and less than 8 mm, the aircraft may be returned to service and inspection must be performed at intervals not exceeding 25 flight hours.
	<ul> <li>If the crack is longer than specified above, before next flight, the aircraft must be repaired according to an approved repair method.</li> </ul>
	Repeat this lower support plate inspection at each 500 hours maintenance inspection if the lower support plate width is equal or more than 84mm, or at each 100 hours maintenance inspection if the lower support plate width is less than 84mm and at every 25 flight hours in the particular case described above.
	2 – <u>Upper support plate :</u>
	<ul> <li>At the next 100 hours maintenance inspection or 1 year, whichever comes first, perform a visual inspection of the connections of upper support plate to oleo cylinder, including the upward side according to the APEX SB n°101.</li> </ul>
	<ul> <li>At the next 500 hours maintenance inspection perform a dye penetrant check of the upper support plate according to the APEX SB n°101.</li> </ul>
	If a crack is found in the upper (area 1 or 2 of fig 2 of the service bulletin in reference) support plate, before next flight, the aircraft must be repaired according to an approved repair method.
	Repeat the upper support plate visual inspection at each 100 hours maintenance inspection or 1 year, whichever comes first, and the dye penetrant check at each 500 hours maintenance inspection.
Ref. Publications:	Apex SB n°101 revision 5 dated 22 May 2007 or latter issue.

## Remarks:

- 1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Methods of Compliance (AMOC) for this AD.
- 2. This AD was posted as PAD 07-009 on 12 January 2007 for consultation until 26 January 2007. The Comment Response Document can be found at <a href="http://ad.easa.europa.eu/">http://ad.easa.europa.eu/</a>.
- 3. Enquiries regarding this EAD should be addressed to Mr. M. Capaccio, AD Focal Point, Certification Directorate, EASA. E-mail: ADs@easa.europa.eu
- 4. For any questions concerning the technical content of the requirements in this EAD, please contact:

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