


EASA	PROPOSED AIRWORTHINESS DIRECTIVE	
	<p>PAD No : 05-018</p> <p>Date: 10.11.2005</p>	
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 Approval Holder's Name The New Piper Aircraft, Inc.		Type/Model designation PA-28
FAA TCDS 2A13		
Foreign AD: None		
Supersedure: Supersedes CAA UK AAD 002-06-99		
ATA 32	Structure – main undercarriage – Inspection	
Manufacturer(s):	Piper	
Applicability:	Piper PA-28-140, PA28-150, PA-28-151, PA-28-160, PA-28-161, PA-28-180, PA-28-181, PA-28-201, PA-28-235 and PA-28-236 aircraft.	
Reason:	<p>This AD is proposed following EASA review of UK CAA Article 10.1 submissions. In this case EASA concurs with the UK CAA that an unsafe condition exists and has received no substantive evidence to date that would change this opinion.</p> <p>The UK AAD was raised in response to an incident in 1995 and recurring failures of the main landing gear leg castings, (Part No. 65319-02, -03 or -04), due to cracking on the oleo torque link attach lugs. Occurrence reports received by CAA-UK in the period 1966 to 1999 showed 13 confirmed failures and 6 unconfirmed incidents. Most of these failures remain undetected until the aircraft touched the ground during landing, and have resulted in the gear wheel pivoting relative to the oleo leg body, collapse of the associated main landing gear, consequential airframe damage and loss of control. These events carry a risk of serious injury and potential for loss of life.</p>	

	<p>A recommended inspection of the failure area concerned was promulgated under Piper Service Letter No. 760 dated November 12, 1975, but Page 2 of this Service Letter focussed attention on the <u>upper</u> radii of the lug roots. Both CAA investigations of incidents and a report from the UK Air Accidents Investigations Branch (AAIB) on a specific accident (ref., AAIB Bulletin No: 8/93), have identified fatigue cracking / corrosion starting from the root area of both torque link lugs at the <u>lower</u>, inner radii positions.</p> <p>There is a need to inspect both upper and lower faces and in view of the number of incidents reported EASA concludes that an AD based on the CAA AD is necessary to prevent an unsafe condition developing.</p> <p>Piper has more recently produced a new Service Bulletin No. 1131 dated August 18, 2003 for which Piper considers compliance mandatory. Piper SB 1131 seeks inspections of the oleo lugs as defined in the UK AAD Piper 002-06-99 (but at 100 hourly intervals). EASA proposes to adopt the 100 hour inspection interval in line with the Piper SB.</p> <p>The installation of forged main landing gear strut cylinders acts as a terminating modification and thus relieves the need for further repetitive inspections.</p>
Effective Date:	Proposed 20.12.05
Compliance:	<p>Required prior to the accumulation of 2000 flight hours. Aircraft in excess of 2000 flight hours, compliance is required within 75 flying hours, from the effective date of this Directive, unless previously accomplished in which case within 100 hours from that inspection.</p> <p>Inspect the cast main landing gear oleo housing torque link attach lugs (Piper Part No. 65319-02, -03 or -04) for cracks. Using a 10x power magnifying glass, inspect the top and bottom radii at the torque link attach lugs where it connects to the strut housing. If no cracks are found by this method, use dye penetrant inspection to check for cracks. If cracks are found, the main landing gear oleo housing must be replaced before further flight.</p> <p>Repeat inspection at intervals not exceeding 100 flight hours.</p> <p>Replacement of the cast housing with a forged unit Part No. 65490 terminates the need for repeat inspections.</p> <p>NOTE: The dye penetrant process can be found in the PA-28-181 airplane maintenance manual, Chapter 20, Section 20-10-00.</p>
Ref. Publications:	Service Bulletin 1131, available from The New Piper Aircraft, Inc. 2926 Piper Drive, Vero Beach, Florida 32960
Remarks:	<p>Comments regarding this PAD should be referred to Mr M. Capaccio, AD Focal Point, Certification Directorate, EASA. E-mail ADs@easa.eu.int</p> <p>The closing date for comments is 10 December 2005</p>