
AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Pilatus PC-12 Series Aeroplanes**AD/PC-12/46****Landing Gear Components****7/2005**

Applicability: Model PC-12 and PC-12/45 aircraft, serial numbers MSN 101 through MSN 471 and MSN 473 through MSN 482; equipped with Landing Gear Components as listed below:

Nose Landing Gear assemblies part numbers 532.20.12.038 and 532.20.12.039, with serial numbers AM 001 through AM 045, and AM 048 through AM 054.

Main Landing Gear assemblies part number 532.10.12.049 and 532.10.12.050, with serial numbers AM 001 through AM 027, AM 029 through AM 045, AM 047 through AM 050, AM 052 and AM 053.

Main Landing Gear shock absorber assemblies part number 532.10.12.175, with serial numbers AM 001 through AM 017, AM 019, AM 021 through AM 063, AM 065 through AM 070, AM 072 through AM 074, AM 080, AM 084, AM 086, AM 089, AM 090, AM 093 through AM 096, AM 099, and AM 103 through AM 107.

Requirement: Perform an inspection of the Nose Landing Gear assemblies part number 532.20.12.038 or 532.20.12.039, the Main Landing gear assemblies part number 532.10.12.049 or 532.10.12.050, and the Main Landing Gear shock absorber assembly 532.10.12.175, to determine if the serial numbers start with the letters AM. If the assembly serial numbers do not start with the letters AM, no further action is required.

If, during the required inspection, an assembly has a serial number starting with the letters AM, within the compliance time, replace the affected component(s) with new parts as specified in Pilatus PC-12 Service Bulletin No. 32-16 dated 11 March 2004 or later FOCA approved revisions. Before installing any assembly, check compliance with AD/PC-12/30 (PC-12 SB 32-012) and AD/PC-12/38 (PC-12 SB 32-015).

Note: Switzerland FOCA AD HB-2005-168 refers.

Compliance: Inspect within 300 hours time in service after 7 July 2005, but not later than 31 December 2005.

This Airworthiness Directive becomes effective on 7 July 2005.

Pilatus PC-12 Series Aeroplanes

AD/PC-12/46 (continued)

Background: The manufacturer has discovered that some components of the nose and main landing gear assemblies and the main landing gear shock absorber assemblies have the potential to fail during operation. Investigation revealed an improper cadmium plating process was applied to certain high strength steel landing gear parts, which could result in hydrogen embrittlement. This condition can decrease the specified fatigue life and could lead to component failure and landing gear collapse during operation.



David Villiers
Delegate of the Civil Aviation Safety Authority

25 May 2005