



EASA Safety Information Bulletin

SIB No.: 2008-42
Issued: 21 May 2008

Subject: RUAG (Dornier) 228 series Nose Landing Gear - Inspection / Replacement

Ref. Publications: Luftfahrt-Bundesamt (LBA) Germany Airworthiness Directive (Lufttüchtigkeitsanweisung -LTA) D-2008-149, published 16 April 2008, effective date 05 May 2008; and RUAG Service Bulletins SB-228-274 dated March 5, 2008 and ASB-228-272 dated November 30, 2007

Description: The LBA of Germany has published the referenced LTA (attached as pages 2 and 3 of this bulletin) to require a borescope inspection of the nose landing gear and, if failing the inspection criteria, the replacement of the nose landing gear.

According to Article 205(1) of Regulation (EC) No 216/2008 of the European Parliament and of the Council of 20 February 2008 on common rules in the field of civil aviation and establishing a European Aviation Safety Agency, EASA has only taken over Member States obligations that are related to design approval. As a consequence, EASA is only authorised to issue ADs related to design approval. EASA has determined that the above referenced unsafe condition is not related to design approval, as it is the result of manufacturing non-conformity and that the type design is therefore not affected. However, this is a serious safety issue and this Safety Information has been issued accordingly. National Aviation Authorities of the EU member states may adopt the referenced LTA under their State of Registry responsibility.

Applicability: Model 228-100, 228-101, 228-200, 228-201, 228-202 and 228-212, all serial numbers. These aircraft were manufactured by Dornier Luftfahrt GmbH.

Contact: For further information contact the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA.
E-mail: ADs@easa.europa.eu.

Datum der Bekanntgabe: 05.05.2008

Muster: Dornier
Dornier Do 28

AD der ausländischen Behörde:
-keine-

Geräte-Nr.:
2031a, 2031b, 2031c

Technische Mitteilungen des Herstellers:
RUAG Alert Service Bulletin ASB-228-272 vom 30.11.2007
RUAG Service Bulletin SB-228-274 vom 05.03.2008

Betroffenes Luftfahrtgerät:

Dornier
Dornier Do 28

- **Baureihen:** 228-100 / -101 / -200 / -201 / -202 / -212

- **Werk-Nrn.:** Alle

Betrifft:

Mögliches Versagen des Bugfahrwerks bei der Landung durch Bruch des Befestigungsbeschlags der Stützstrebe am Fahrwerkszylinder aufgrund einer fehlerhaft ausgeführten Schweißnaht.

Maßnahmen:

Detaillierte Informationen über die durchzuführenden Maßnahmen sind der englischsprachigen Ausführung dieser Lufttüchtigkeitsanweisung und den genannten technischen Mitteilungen des Herstellers zu entnehmen. Alle erforderlichen Maßnahmen zur Abstellung des technischen Mangels müssen ordnungsgemäß, vollständig und innerhalb der vorgesehenen Fristen auf Basis der genannten Bezugsdokumente durchgeführt werden. Alle Abweichungen von den Maßnahmen und Fristen dieser Lufttüchtigkeitsanweisung bedürfen der vorherigen Zustimmung durch das Luftfahrt-Bundesamt.

Fristen:

Alle anzuwendenden Fristen sind der englischsprachigen Ausführung dieser Lufttüchtigkeitsanweisung zu entnehmen.

Die Laufzeit aller anzuwendenden Fristen beginnt mit dem Datum der Inkraftsetzung der englischsprachigen Ausführung dieser Lufttüchtigkeitsanweisung.

Durch die vorgenannten Mängel ist die Lufttüchtigkeit des Luftfahrtgerätes derart beeinträchtigt, daß es nach Ablauf der genannten Fristen nur in Betrieb genommen werden darf, wenn die angeordneten Maßnahmen ordnungsgemäß durchgeführt worden sind. Im Interesse der Sicherheit des Luftverkehrs, das in diesem Fall das Interesse des Adressaten am Aufschub der angeordneten Maßnahmen überwiegt, ist es erforderlich, die sofortige Vollziehung dieser LTA anzuordnen.

Rechtsbehelfsbelehrung:

Gegen diese Verfügung kann innerhalb eines Monats nach Bekanntgabe Widerspruch eingelegt werden. Der Widerspruch ist schriftlich oder zur Niederschrift beim Luftfahrt-Bundesamt, Hermann-Blenk-Str. 26, 38108 Braunschweig einzulegen.

LTAs werden auch im Internet unter <http://www.lba.de> publiziert



Airworthiness Directive

D-2008-149

Luftfahrt-Bundesamt

Airworthiness Directive Section
Hermann-Blenk-Str. 26
38108 Braunschweig
G E R M A N Y

DORNIER

Effective Date: 5 May 2008

Affected:

Kind of aeronautical product:	Airplane
Manufacturer:	RUAG Aerospace Services GmbH, Wessling, Germany
Type:	DORNIER Do 28
Models affected:	228-100 / -101 / -200 / -201 / -202 / -212
Serial Numbers affected:	All
German Type Certificate No.:	2031A/SA, 2031B/SA, 2031C/SA
EASA Type Certificate No.:	none

Subject:

Fatigue cracks at the connection between nose landing gear cylinder and strut support because of a manufacturing error during the welding process.

Reason:

The Luftfahrt-Bundesamt has been informed by RUAG about an incident with the Dornier 228 where a part of the nose landing gear (NLG) was fractured and detached. The NLG did not retract unintended and was kept in place by the actuator of the nose wheel steering (NWS) system. No further problems were reported. In the following inspection performed by RUAG a manufacturing error during the welding process has been detected as the reason for the cracked connection. The welded seam of the strut support was not performed properly and thus the fracture could develop undetected from inside to outside of the affected fitting.

The actions specified by this airworthiness directive are intended to prevent further cracking of strut supports which could result in collapse of the NLG.

Action:

This airworthiness directive requires the following actions:

1. Borescope inspection of the welding seam of the NLG strut support.
2. Replacement of all affected NLG's which do not satisfy the inspection criteria's mentioned in the RUAG Service Bulletins SB-228-274 dated March 5, 2008 and ASB-228-272 dated November 30, 2007.

All necessary actions have to be performed on the basis of the referenced manufacturer service bulletins.

Compliance:

For ASB-228-272:

For Nose landing gears with P/N A-531000F00F or any other NLG with exchange cylinder P/N A-531020F00C.

Necessary actions must be performed for affected NLG's with

- more than 4000 flight cycles (FC) or unknown flight cycles within the next 50 landings.
- less than 4000 FC within the next 500 landings.

For SB-228-274:

For all other variants of NLG's necessary actions must be performed within next 600 FC or 6 months from effective date of this AD, what ever occurs first.

Technical publication of the manufacturer:

RUAG Service Bulletin SB-228-274 dated March 5, 2008 and ASB-228-272 dated November 30, 2007. These Service Bulletins become herewith part of this AD and may be obtained from:

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