

# Airworthiness Directive of the Netherlands



Ministry of Transport, Public Works and Water Management

Directorate-General of Civil Aviation

Aeronautical Inspection Directorate

Bijzondere Luchtwaardigheids Aanwijzing (BLA)

## Caution

*In accordance with the Civil Air Navigation Regulations (RTL), Articles 76 and 88, the following Airworthiness Directive (BLA) is issued by the Director-General of Civil Aviation of the Netherlands (Directeur-Generaal van de Rijksluchtvaartdienst -RLD). Airworthiness Directives affect aviation safety. They are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive.*

BLA nr : 93-009/3 (A)

Date : June 01, 1993

FOKKER AIRCRAFT B.V.

Model F.28 Mk.0100

Seq.: 108

Type Certificate Nr.:

T-100-87

## LANDING GEAR - MAIN WHEEL ASSEMBLY - INSPECTION/REPAIR

### Description:

Recently, several Fokker F.28 Mk.0100 operators reported finding cracks and broken spokes on Main Wheel Assemblies P/N 5008131-4. To date, seventeen (17) damaged wheel subassemblies have been found. Investigation revealed that the manufacturer of the wheels, ABS Corporation, had discontinued a shot-peening procedure which was part of the manufacturing process before april 1991. Subsequently, an improved shot-peening procedure was introduced in October 1992 on the mating surfaces of the inboard wheel sub-assemblies. This procedure was not introduced on outboard wheel sub-assemblies until February 1993, however. As a result, a number of units were produced which are prone to fretting and cracking, due to the lack of shot-peening of the assembly mating surfaces and bolt bosses. Since the unsafe condition described may exist or develop on other aircraft of the same type design, this Airworthiness Directive (BLA) requires the inspection and modification of the affected main wheel assemblies.

### Effectivity:

- \* F.28 Mk.0100 aircraft, all serial numbers, if equipped with ABS Corporation Main Wheel Assembly P/N 5008131-4, Serial Numbers APR91-0570 through FEB93-0965.
- \* ABS Corporation spare Demountable Flange (inboard) Wheel Subassemblies P/N 5008142-4, Serial Numbers S-APR91-0097 through S-MAY92-0126; and spare Demountable Flange (outboard) Wheel Subassemblies P/N 5008140-1, Serial Numbers S-MAR91-0002 through S-FEB93-0010.

Effective date: June 08, 1993

Compliance: Required as indicated, unless accomplished previously:

(a) Perform an eddy current inspection for cracks on Demountable Flange (inboard) Wheel Subassemblies P/N 5008142-4, serial numbers APR91-0570 through OCT92-0858, and S-APR91-0097 through S-MAY92-0126 in accordance with SECTION II - ACCOMPLISHMENT INSTRUCTIONS, Paragraph C. of ABS Corporation (ABSC) Service Bulletin (SB) Fo100-32-46, dated December 24, 1992; and on the bolt bosses of Demountable Flange (outboard) Wheel Subassemblies P/N 5008140-1, serial numbers APR91-0570 through FEB93-0965, and S-MAR91-0002 through S-FEB93-0010 in accordance with SECTION II - ACCOMPLISHMENT INSTRUCTIONS, Paragraph B. of ABSC SB Fo100-32-48, dated March 10, 1993, as follows:

(1) For main wheel assemblies which have not yet accumulated 800 flight cycles on the effective date of this AD, perform the inspection before accumulating 900 flight cycles, or within the next 200 flight cycles after the effective date of this AD, or at the next tire change, whichever occurs first;

(2) For main wheel assemblies which have already accumulated 800 flight cycles or more on the effective date of this AD, perform the inspection within the next 100 flight cycles after the effective date of this AD, or at the next tire change, whichever occurs first;

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BLA nr: 93-009/3 (A)

(b) Thereafter, at intervals not exceeding 500 flight cycles or at each tire change, whichever occurs first, perform an eddy current inspection for cracks on Demountable Flange (inboard) Wheel Subassemblies P/N 5008142-4, serial numbers APR91-0570 through OCT92-0858, and S-APR91-0097 through S-MAY92-0126 in accordance with SECTION II - ACCOMPLISHMENT INSTRUCTIONS, Paragraph C. of ABSC SB Fo100-32-46, dated December 24, 1992; and on Demountable Flange (outboard) Wheel Subassemblies P/N 5008140-1, serial numbers APR91-0570 through FEB93-0965, and S-MAR91-0002 through S-FEB93-0010 in accordance with SECTION II - ACCOMPLISHMENT INSTRUCTIONS, Paragraph B. of ABSC SB Fo100-32-48, dated March 10, 1993.

(c) If no crack indications are found during the third inspection as required by paragraph (b) of this AD, before further flight, repair Demountable Flange (inboard) Wheel Subassemblies P/N 5008142-4 in accordance with SECTION II - ACCOMPLISHMENT INSTRUCTIONS, Paragraph D. of ABSC SB Fo100-32-46, dated December 24, 1992; and repair Demountable Flange (outboard) Wheel Subassemblies P/N 5008140-1 in accordance with SECTION II - ACCOMPLISHMENT INSTRUCTIONS, Paragraph C. of ABSC SB Fo100-32-48, dated March 10, 1993.

(d) At the next two tire changes after the repair as required by paragraph (c) of this AD, perform an eddy current inspection on Demountable Flange (inboard) Wheel Subassemblies P/N 5008142-4 in accordance with SECTION II - ACCOMPLISHMENT INSTRUCTIONS, Paragraphs B.1 and C. of ABSC SB Fo100-32-46, dated December 24, 1992;

**NOTE 1:** If no crack indications are found after these two inspections, an eddy current inspection of the register surface must only be done at the normal overhaul intervals. For the modified Demountable Flange (outboard) Wheel Subassemblies P/N 5008140-1, the inspections of paragraph (d) of this AD are not required. The applicable Component Maintenance Manual (CMM) contains the necessary instructions.

(e) When damage or cracks are found during any inspection as required by this AD, replace the Demountable Flange Wheel Subassemblies P/N 5008142-4 (inboard) or P/N 5008140-1 (outboard), as applicable, with a serviceable part. Spare Demountable Flange (inboard) Wheel Subassemblies P/N 5008142-4 with serial numbers S-APR91-0097 through S-MAY92-0126, spare Demountable Flange (outboard) Wheel Subassemblies P/N 5008140-1 with serial numbers S-MAR91-0002 through S-FEB93-0010, and Main Wheel Assemblies P/N 5008131-4 with serial numbers APR91-0570 through FEB93-0965 may be used as replacement only when modified in accordance with paragraph (c) of this AD. Replacement with a serviceable part constitutes terminating action for the periodical inspections as required by paragraphs (b) and (d) of this AD.

**NOTE 2:** Fokker Service Bulletins F100-32-070 dated January 18, 1993; and F100-32-073 (to be issued) also pertain to this subject.

**Reason for revision:** The addition of inspection and modification instructions concerning Demountable Flange (outboard) Wheel Subassemblies P/N 5008140-1.

Remarks:

- Operators of the affected aircraft may obtain copies of the referenced service information upon request directly from the manufacturer.
- Compliance with this AD must be recorded in the proper Aircraft Log Book(s).
- Where applicable, the requirements of this AD must be integrated into the aircraft's Maintenance Schedule.
- This revision supersedes and cancels Airworthiness Directive (BLA) 93-009/2, dated March 05, 1993.

Address inquiries concerning this AD to:

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