

AIRWORTHINESS DIRECTIVE

92-273 MBB/Eurocopter

Date of issue:

April 29, 1992

Affected helicopters:

German Type Certificate No. 3025
MESSERSCHMITT-BÖLKOW-BLOHM/EUROCOPTER
BO 105 series helicopter
S/N S1 up to S876

Subject:

Transmission system - checking installed position of transmission (gearbox) flanges

Reason:

There is reason to draw attention to the possibility of the input flanges of the intermediate and tail rotor gearboxes and of the output flanges of the main transmission, the intermediate gearbox being incorrectly installed. This is the case when the shims installed in the transmission (gearbox) behind the input (output) flange do not abut the roller bearing inner race, but instead are jammed in the annular groove of the bevel pinion gear. As a result, the input (output) flange protrudes from the transmission (gearbox) 3 to 4 mm more than it would do if correctly installed. Incorrectly installed input (output) flanges can result in destruction of the pinion gear teeth and, particularly in the case of the intermediate gearbox, failure of the tail rotor within a short period of time.

Action and compliance:

1. The input and output flange check on the intermediate gearbox per detailed instructions listed in MBB/Eurocopter Alert Service Bulletin ASB-BO 105-30-104 dated March 12, 1992 shall be performed as follows:

- a) on intermediate gearboxes with less than 10 flight-hours

prior to next flight.

- b) on intermediate gearboxes which have had a shaft seal installed within the last 10 flight-hours

prior to next flight.

2. The input and output flange clearance check on main transmission, tail rotor and intermediate gearboxes per detailed instructions listed in MBB/Eurocopter Alert Service Bulletin ASB-BO 105-30-104 dated March 12, 1992 shall be performed as follows:

- a) on main transmissions, tail rotor and intermediate gearboxes in spares inventory

prior to installation.

If the requirements of this Alert Service Bulletin will not be performed at once, the following information shall be entered on the accompanying tags of these spare parts:

"Perform ASB-BO 105-30-104 prior to installation"

If the requirements of this Alert Service Bulletin will be performed at once, the following information shall be entered on the accompanying tags of these

spare parts:

"ASB-BO 105-30-104 accomplished on ... (date)"

and confirm compliance in the Historical Record in accordance with 2. "Conclusions".

- b) on installed main transmissions and tail rotor gearboxes with any number of flight-hours

within the next 50 flight-hours.

- c) on installed intermediate gearboxes with more than 10 flight-hours

within the next 50 flight-hours.

- d) on installed intermediate gearboxes with more than 10 flight-hours and installation of a shaft seal

within the next 50 flight-hours.

Technical publication of the manufacturer:

MBB/Eurocopter Service Bulletin ASB-BO 105-30-104 of March 12, 1992
which becomes herewith part of this AD and may be obtained from Messrs.

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Accomplishment and log book entry:

Action to be accomplished by an approved service station and has to be checked and entered in the log by a licensed inspector.