

## AG-MI-2013-14-B-EN – Pre-Rotator Clutch

Category **B**

### EFFECTIVE DATE

05.12.2013

### SUPERSEDES/REPLACES

N/A (initial issue)

### APPLICABILITY

Cavalon, serial numbers up to and including V00135

### COMPLIANCE

To be performed **before next flight** or **while next maintenance**, whichever occurs first.

### BACKGROUND

Further problems regarding pre-rotator clutch, especially in case of non-compliance with previous manufacturer information AG-MI-2013-02-B-EN – Pre-Rotator Clutch

### RISK OF NEGLECT

Failure to comply with this instruction/information will result in

- possible damage to the aircraft
- loss of related warranty

### SCOPE OF WORK

- 1 Replace friction plate
- 2 Demount dog gear, clean thread and remount rear crankshaft driver, if not already accomplished and documented (Event and Configuration Log)

### AFFECTED AREAS

N/A

### SPECIAL TOOLS & CONSUMABLE MATERIALS

V.WZ3024	Installation Aid Dog Gear
S.VB6055	Loctite 648
S.VB3008	Loctite 7063 Super Clean
V.WZ3028	Thread Pin M8x50

### PARTS

V.PR08	Replacement Set Friction Plate PK II / III
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#### Contact & Info:

airworthiness@auto-gyro.com  
www.auto-gyro.com

#### AutoGyro GmbH

Dornierstr. 14  
31137 Hildesheim

### LABOR AND REQUIREMENTS

To accomplish 3 h

Task may only be performed by AutoGyro or AutoGyro-Maintenance Partners!

### SUPPORT POLICY

Spare part f.o.c. (reimbursement upon receipt of affected part), assumption of forwarding expenses and working hours (3 h á 50 €)

## REFERENCES

Manufacturer Maintenance Manual (MMM) in latest revision.  
Manufacturer Information AG-MI-2013-02-B-EN – Pre-Rotator Clutch

## DOCUMENTATION

The accomplishment of this Manufacturer Information, or the decision of its rejection, must be properly documented, if such procedure is required by the relevant authority.  
AutoGyro requests a mandatory feedback for the accomplishment of this manufacturer information. Feedback is provided on the MI Feedback Form, which is attached to the MI. Return completed MI Feedback Form to [airworthiness@auto-gyro.com](mailto:airworthiness@auto-gyro.com).

## Warnings Caution and Notes

This instruction uses **WARNINGS**, **CAUTIONS** and **NOTES** in bold italic letters to indicate especially critical and important instructions. The call-outs appear at the top of the Maintenance Job Card if of general nature or applicable for the complete task, or will directly precede the individual Work Step.

The meaning of each call-out is defined below:

***WARNING: A warning means that the neglect of the appropriate procedure or condition could result in personal injury or fatal accidents.***

***CAUTION: A caution means that the neglect of the appropriate procedure or condition could result in damage to or destruction of equipment.***

***NOTE: A note stresses the attention for a special circumstance, which is essential to emphasize.***

## Category Codes

- A** Safety critical - failure to comply may result in a significant reduction of flight safety, injury or death
- B** Important - failure to comply may result in reduced safety margin, injury and/or equipment damage
- C** Beneficial - improves operating behaviour, reliability and/or maintainability

## COMPLIANCE PROCEDURE

### GENERAL, REFERENCES AND REQUIREMENTS

Task may only be performed by AutoGyro or AutoGyro-Maintenance Partners!

Manufacturer Information AG-MI-2013-02-B-EN – Pre-Rotator Clutch

Secure gyroplane against unauthorized or unintended operation!

Manufacturer Maintenance Manual (MMM) in latest revision.

### SPECIAL TOOLS, CONSUMABLE MATERIALS AND PARTS

V.WZ3024	Installation Aid Dog Gear
S.VB6055	Loctite 648
S.VB3008	Loctite 7063 Super Clean
V.WZ3028	Thread Pin M8x50

### PRECAUTIONS AND SAFETY MEASURES

N/A

### PROCEDURES

- 1 Demount engine cowlings according to 52-00-00 4-1
- 2 Disconnect battery according to 24-30-00 4-1, steps 1-2
- 3 Demount M8x20 screw plug (Fig. 2) with seal ring from the crankcase. Turn the crankshaft by propeller in top dead centre (TDC) of cylinder 1 and 2. TDC can be checked with the aid of a lamp through the opening of the removed screw, if the crankshaft recess is in the required position. If the crankshaft is into the correct position screw V.WZ3028 (Fig. 3) so that the crankshaft is blocked
- 4 Remove pre-rotator clutch according to 63-11-10 4-1, steps 1-9
  - 4.1 Replace friction plate with new part equipped with additional brake pad  
For that purpose: Untighten central screw. Should it not be possible untighten central screw bore out bolt head and remove remaining screw thread with pliers. Pull friction plate off the drive shaft axially. Place spare part and fix it with new central screw.
- 5 Demount dog clutch gear with 'Installation aid Carrier crankshaft'
- 6 Thoroughly clean the crankshaft and the driver stud with Loctite 7063
- 7 Apply Loctite 648 on inner and outer thread in sufficient quantity (Fig 4)  
**WARNING Use Loctite 648 only! Use of other brands or alternative products excludes correct function.**
- 8 Screw dog clutch gear onto the thread  
**WARNING The dog clutch gear must be easy screwable (floating) up to the stop!**  
Remove excess Loctite
- 9 Tighten dog clutch gear using 'Installation aid Carrier crankshaft' with a torque of 140 Nm. (Fig. 5) Clean driver free of Loctite residues.
- 10 Check with feeler gauge 0.05 mm whether dog clutch gear is contacted with the flywheel. Feeler gauge 0.05 mm must not be able to stick in between dog clutch gear and flywheel. (Fig 6)
- 11 Demount thread pin M8x50 V.WZ3028. Mount M8x20 screw plug with new copper seal ring and tighten with a torque of 15 Nm. For checking turn propeller once.

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## MANUFACTURER INFORMATION

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- 12 Connect battery according to 24-30-00 4-1, steps 2-1
- 13 Mount pre-rotator clutch according to 63-11-10 4-1, steps 10-19
- 14 Mount engine cowlings according to 52-00-00 4-1

## PARTS LIST

Fig.	Pos.	Description	PC PIT	Remark
1	1	Replacement Set Friction Plate PK II / III	L1 V.PR08	-

ILLUSTRATIONS

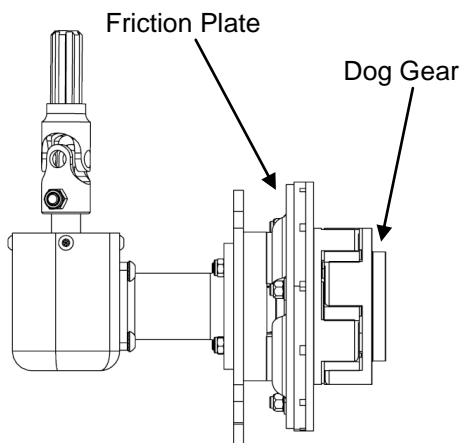


Fig. 1 - Pneumatic Clutch III



Fig. 2 - M8x20 screw plug



Fig. 3 - Thread Pin M8x50

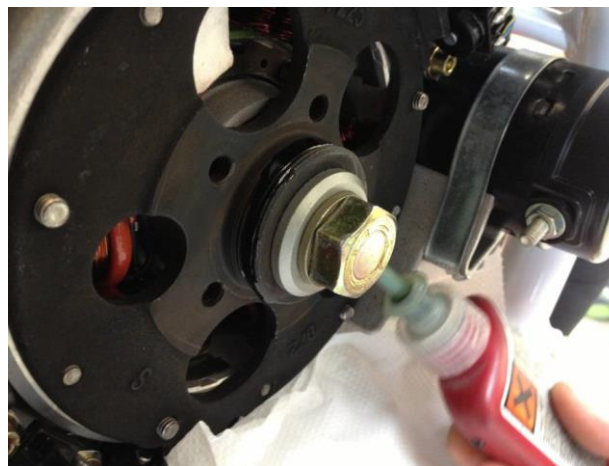


Fig. 4 – Loctite 648 on inner and outer thread



Fig. 5 – Torque dog gear with 140 Nm



Fig. 6 – Correct mounting position

# MI FEEDBACK FORM



This form is supplied to provide feedback to the manufacturer about the accomplishment of the manufacturer information compliance procedure.

The information is stored in a database and is only used within AutoGyro GmbH for the above purpose.

Return the completed form to the manufacturer:

**AutoGyro GmbH**

Dornierstr. 14  
31137 Hildesheim

– Germany –

[airworthiness@auto-gyro.com](mailto:airworthiness@auto-gyro.com)

Aircraft Type:	Serial Number (Werk-Nr.):*	Registered at: (Airworthiness authority)
Registration / Call Sign:	Year of manufacture:	Engine Type:
Airframe S/N:	Rotor System S/N:	Engine S/N:
Airframe hours:	Rotor System hours:	Engine hours:

Manufacturer Information:

AG-MI-2013-14-B-EN – Pre-Rotator Clutch

Compliance procedure performed by:  
(Name, address)

\_\_\_\_\_  
Signature and Date

Compliance procedure results:

Reported by (information is only stored for further inquiry and deleted after investigation):

\*required field