

### **Control of AutoGyro Rotor Systems**

# MANDATORY

#### **Repeating Symbols:**

Please pay attention to the following symbols throughout this document emphasizing particular information:

*	Warning:	Identifies an instruction, which if not followed, may cause serious injury or even
		death.
0	Caution:	Denotes an instruction, which if not followed, may severely damage the gyroplane or
		lead to suspension of warranty.
$\triangleright$	Note:	Information useful for better handling.

#### 1. Planning information

1.1	Gyroplane affected	AutoGyro rotor systems of all AutoGyro gyropolanes
1.2	Reason	Activated by the airworthiness bulletin regarding the Aircopter rotor
		systems, spot tests have shown that there can occur cracks or abnormal
		bending at the fixation of the rotor blade.
		As the cause is not clear at this point (we assume it is caused by extreme
		maneuvers), a check of all rotor systems is necessary.
1.3	Subject	The rotor system of the manufacturer AutoGyro is not airworthy when
		cracks are showing on the rotor blades.
		This has to be determined by a visual check concerning cracks and
		measuring of the straight-line characteristics.
1.4	Compliance	All rotor systems with more than 200 operation hours have to be checked
		before the next flight.
	Warning:	Security relevant component
1.5	Approval	The technical content is approved under the authority of AutoGyro GmbH
1.6	Manpower	1 hour
1.7	Mass data	No change
1.8	Electrical load data	No change
1.9	References	None
1.10	Other publications	None
	affected	
1.11	Interchangeability of	All rotor systems with showing cracks or abnormal bending in the area of
	parts	the fixation of the rotor blade are not usable anymore.

## Gyrofliegen...

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#### 2. Material information

2.1	Material cost and availability	The specific spare part is available on request at AutoGyro GmbH.
2.2	Material requirement per gyroplane	If it is necessary to remove a component like lock wire or nylock nuts during assembly, it is obligatory to replace this part by a new one.
2.3	Material requirement per spare part	Rotor system AutoGyro MT03/MTOsport 8,40m part nr. M.RK49 and rotor system AutoGyro MT03/MTOsport 8m part nr. M.RK48 rotor system AutoGyro Calidus 8,40m part nr. C.RK20
2.4	Rework of parts	None
2.5	Sepcial tooling / lubricant-/ adhesives-/ sealing compound	None

#### 3. Accomplishment / Instructions

3.1	Accomplishment	All accomplishments have to be done by every owner.
3.2	Instructions	The rotor system has to be checked by the owner himself, an instructed expert or by AutoGyro. 1. Secure gyro against rolling 2. Fix Flight/Brake switch to "Brake" 3. Apply maximum pressure 4. Dismount rotor system (according flight manual 4.21) 5. For dismounting the rotor system remove 6 or 9 screws (depending on your rotor system) 6. Dismount blades from hub 7. Clean blades in the fixing area thoroughly 8. Check all bore holes visually on cracks (specially the outer bore hole) 9. Check of straight alignment: align steel ruler (1000mm) from the inside of the blade directly next to the bore holes of the fixation. 10. If there is a crack or a bending (more than 0,5mm) showing, the rotor system is not airworthy anymore and has to be sent to the manufacturer AutoGyro 11. If there are no cracks or bending, the rotor system can be assembled (according to flight manual 4.21) and can be used as usual 12. In every case the attached data sheet has to be filled out and sent back to the manufacturer
3.3	Test run	
3.4	Summary	These instructions (section 3) have to be conducted in accordance with compliance in section 1.4.

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4. Photos

Inside of blade of the AutoGyro rotor system



Outside of blade of the AutoGyro rotor system





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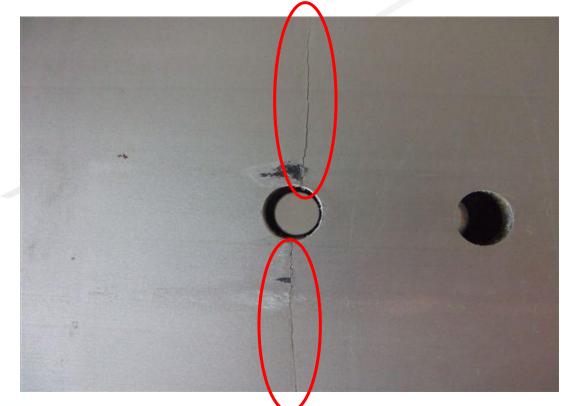
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Example for occurring cracks from the bore hole on one side approx. 10mm



Example for occurring cracks from the bore hole on two sides approx. 30mm



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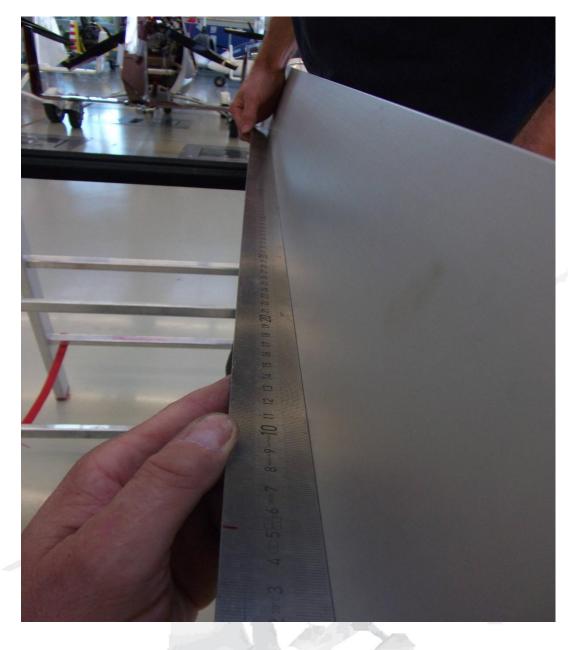
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Measuring of the alignment with a steel ruler (1000mm)

The upright position of the blade prevents a sagging and therefore the measuring is not affected. A light slit should not be showing (as the picture is showing)



Gyrofliegen... die neue Dimension!

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Example for a bended blade behind the fixation (result:rotor system is not airworthy)



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