

TITLE	Inspection and replacement of CT2K nosewheel assembly.
CLASSIFICATION	The CAA have classified this bulletin as mandatory.
COMPLIANCE	Before further flight
APPLICABILITY	All CT2K manufactured and UK registered before 17/06/03

INTRODUCTION -

The original CT2K nosewheel consists of an aluminium hub with 5 6.1mm holes and 5 10mm lightening holes. The spun aluminium rims are bought-in components which have been supplied with pre-drilled 7mm holes and additional 6.1mm holes. The rims are held to the hub with 5 x 6mm nuts and bolts, with 14mm diameter washers. If the rims are assembled through the wrong holes, or the washers are omitted, or the bolts not tightened sufficiently, relative movement between the rim and hub starts. After a short while, the holes wear, cracks begin, the rim distorts and eventually the nosewheel fails.



Failed hub showing extensive fretting due to loose bolts before failure.

ACTION -**A) Before further flight:**

- 1) Weight the rear fuselage with sand bags and a webbing strap just ahead of the fin so as to raise the nosewheel.
- 2) Remove the nosewheel spat. (N.B. it is not recommended to operate the CT2K without the nosewheel spat because of the risk of blockage of the static port with mud)
- 3) Undo the nosewheel axle and tap it out. If it is stiff, rotate it and apply WD40 or similar. Remove the nosewheel and axle spacers. Check the tyre for sidewall cracks & splits while still inflated. Deflate the tyre and disassemble the hub and rims.
- 4) Check for cracks, fretting, corrosion etc. in all components. Check condition of bearings, tyre and tube. If any defects are found, inform the Factory and fit replacement parts of the original design according to the following instructions. Alternatively fit a new design nosewheel according to the modification M135 in part B.

The following applies to original design wheels only:

4) Using the supplied foam plug, plug each hub 12mm lightening hole so preventing the possibility of putting the bolts through them. Ensure they do not stand proud of the surface – trim as necessary. Glue them in place with cyanoacrylate adhesive e.g. Loctite 406.



Foam plugs inserted in lightening holes.

5) Reassemble, using 6mm x 14mm x 1.6mm washers under the head and nut to spread the load. Fit the washers so that the radiussed edge of the washer is against the aluminium rim surface, so that the washer edge does not dig into the aluminium.



Hub assembled correctly showing foam plugged lightening holes.

6) Torque all 6mm bolts to 12 NM

7) Refit the axle and spacers using a little “Copaslip” on the axle, torque the main axle nut to 25NM. Check the wheel for free rotation, tyre pressure 28psi, refit the spat.

Documentation:

When the above actions A are carried out, the aircraft technical log must be signed off by a BMAA or Factory approved inspector, “ service bulletin CT119 (nosewheel) part A carried out”

B) Incorporation of modification M135, fitting new type nosewheel with integral bearing carriers.

The nosewheel may be replaced with the later type according to modification M135 (see the following drawing DKA4010200). The new type nosewheel can be recognised by the gold anodised finish, the bearings are integrally mounted in a thicker rim pressing and it cannot be miss-assembled in the same way.

1) Proceed as A1-4 above.

2) Assemble the new wheel onto the tyre and tube with reference to the assembly drawing below. Ensure the spacers (5,8) are installed between the bearings.

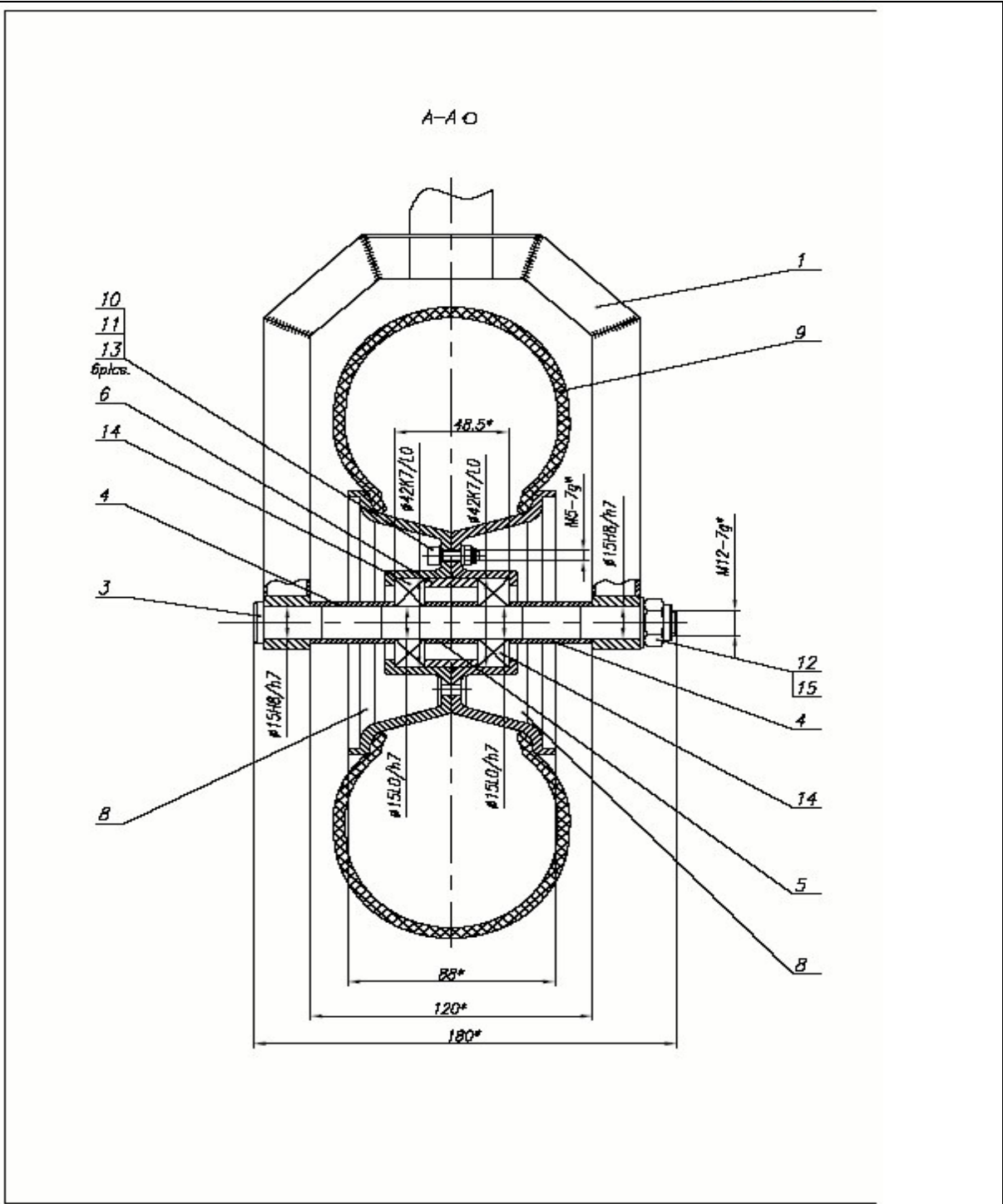
3) Ensure the valve is projecting squarely through the valve hole.

4) Fit the 6 off 5mm bolts, nuts and washers as in the assembly drawing DKA 4010200. Torque to 8NM.

5) Refit the axle (3) and new spacers part (4) using a little “Copaslip” on the axle, torque the main axle nut (12) to 25NM. Check the wheel for free rotation, no free play, tyre pressure 28psi, refit the spat.

Documentation:

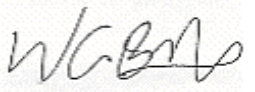
When the above actions B are carried out, the aircraft technical log must be signed off by a BMAA or Factory approved inspector, “ service bulletin part B (new nosewheel modification M135) carried out”.



New type nose wheel assembly drawing DKA4020100 (Mod 135)

1	2	3	4	5	6
Item	Quantity	Unit	Name	Designation	Notes
<u>Documentation</u>					
			Assembly drawing	DKA4010200 ASSY	
<u>Assembly units</u>					
1	1	pcs	Nose wheel rotation unit	KA4010100 ASSY	
<u>Details</u>					
3	1	pcs	Nose gear wheel axis	KA4010002	
4	2	pcs	Nose wheel axis bush	DKA4010003_1	
5	1	pcs	Distance bushing	DKA4010007_1	
6	1	pcs	Distance bushing	DKA4010008	
<u>Standard articles</u>					
8	2	pcs	Wheel disk 400/4"	7208A	
9	1	pcs	Unit with tire and tube, for Ultralight 4.00-4	7207D	
10	6	pcs	Bolt DIN 912 M5x16-8.8	6035	
11	6	pcs	Self-locking nut DIN 985-M5, regular	6333	
12	1	pcs	Self-locking nut DIN 985-M12, regular	6338	
13	6	pcs	Washer DIN 125 A2B-6.3mm	6503	
14	2	pcs	Bearing 6302		
15	1	pcs	Washer DIN 125 A-13 mm VZ	6507	
			Done	Date	Name
			Check.		
			Norm		
Flight design				DKA4010200 ASSY	Rev. Sheet
				-	1 of 1
Let.	Change	Date	Name		

ISSUED BY	W.G.Brooks	DATE
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Approved		Date 24/12/04
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Checked		Date
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