

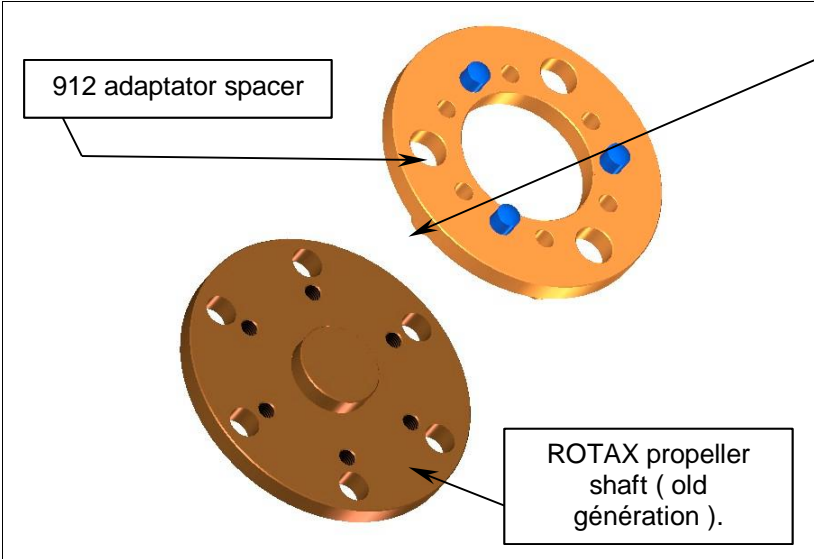
**NOTE OF ASSEMBLY**  
ADAPTATOR SPACER / SPINNER MOUNTING PLATE / **DUC** HUB on  
**ROTAX 912 – 912S** PROPELLER SHAFT **old generation**

Note reference: 912 -A / 10

*Assembly of the 912 adaptator spacer with DUC spinner*

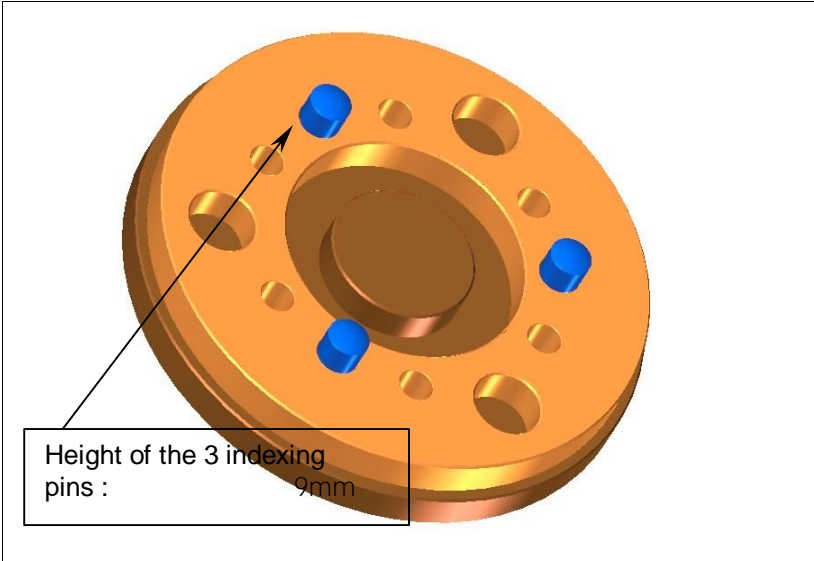
The ROTAX 912 propeller shaft, *old generation*, presents 6 holes  $\varnothing 12\text{mm}$  on a distance between centers  $\varnothing 100\text{mm}$  and 6 M8 tapped holes on a distance between centers  $\varnothing 75\text{mm}$  for the fixing of the hub.

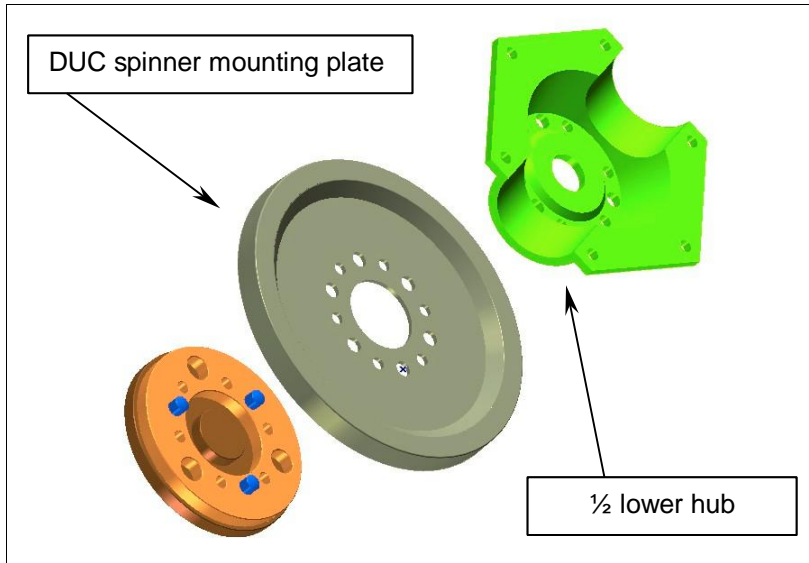
**Operation 1** : VERIFICATION OF THE ADAPTATOR SPACER.



6 indexing pawns  $\varnothing 12\text{mm}$

- VERIFICATION :
- § Check the height of the 3 pins  $\varnothing 10\text{mm}$  compared to the 912 adaptator spacer.
- In the case of assembly with a DUC spinner mounting plate, the height of the pins is of :
- 9 mm**
- § Position the spacer by indexing the 6 pawns out of the 6 holes  $\varnothing 12\text{mm}$  of distance between centers  $\varnothing 100\text{mm}$  on the ROTAX propeller shaft (old generation).
  - § Position to the mounting plate of the DUC spinner with the  $\frac{1}{2}$  lower hub indexed on the pins  $\varnothing 10\text{mm}$ .

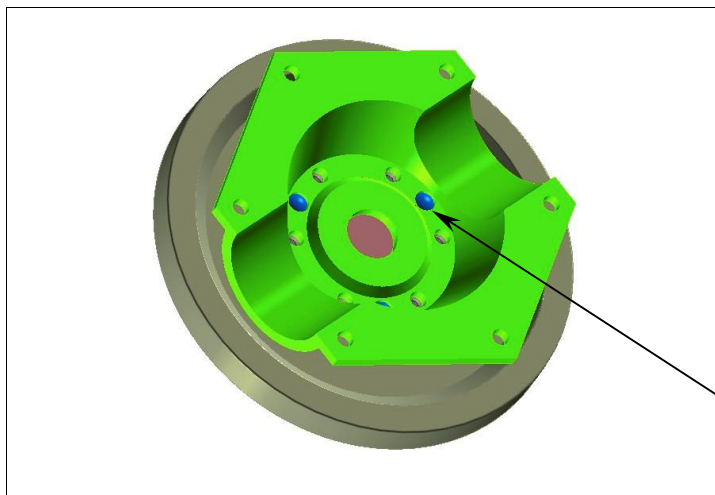




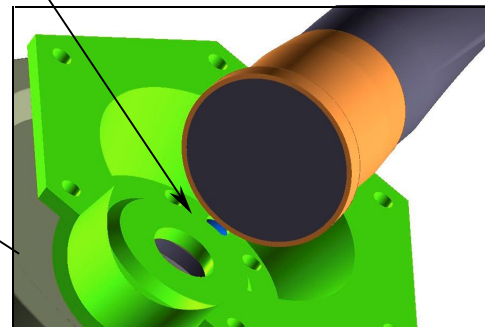
§ Once the mounting plate and the ½ hub positioned, check that the head of the pins does not exceed the lower face of the ½ hub.

If the head of the indexing pins  $\varnothing 10\text{mm}$  exceeds, it risks to damage the rings of blades and especially to put out of order the angle of attack of the propeller.

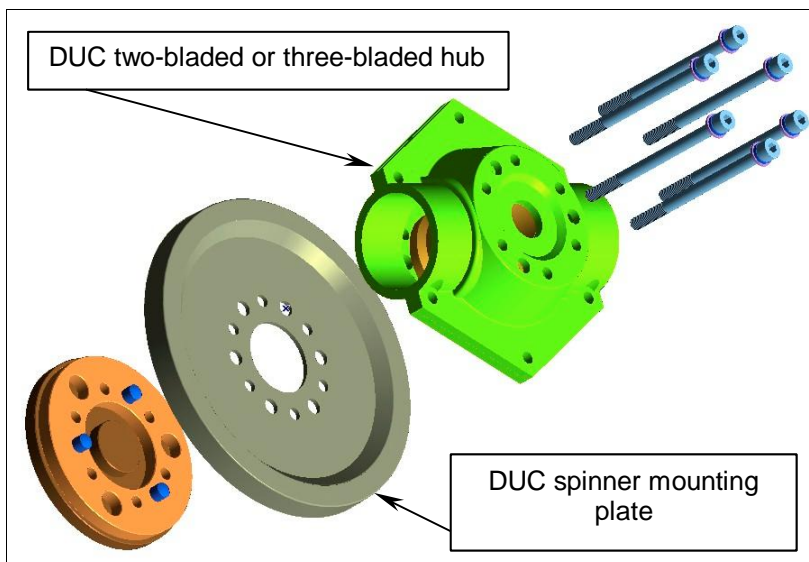
With a height of 9mm, the head of pins must be tangent with the lower face of the ½ hub



Play between pins and rings of blades

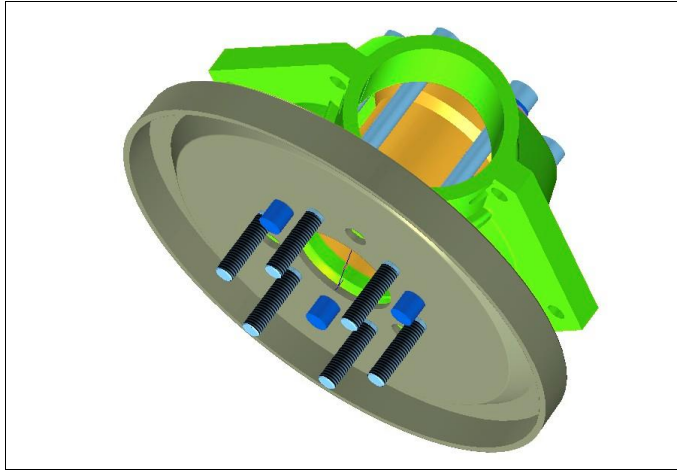


**Operation 2** : ASSEMBLY OF THE ADAPTATOR SPACER WITH THE COMPLETE HUB .

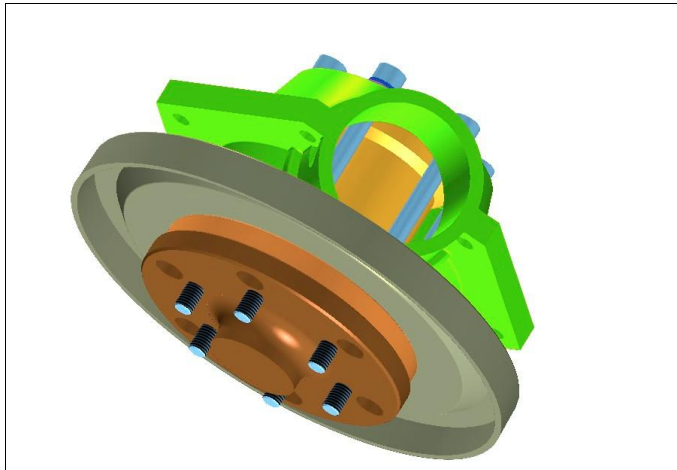
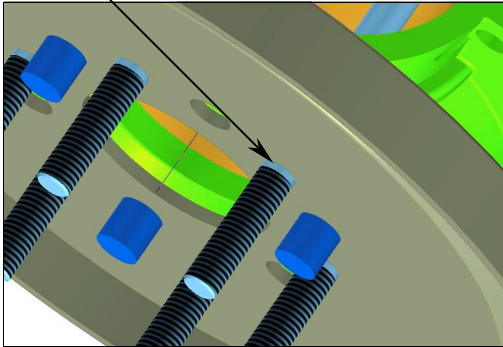


§ Once the checking carried out, position the spinner mounting plate and the complete hub on the spacer by indexing them on the 3  $\varnothing 10\text{mm}$  pins,

§ Present the 6 CHC M8 screws of the hub fixing.



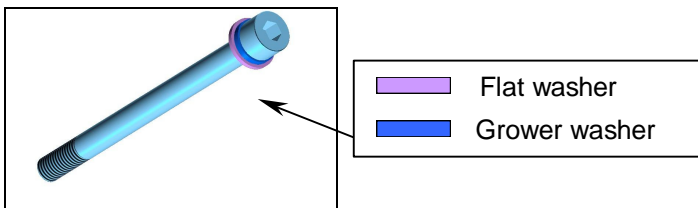
Shearing surface on the smooth body of 6 CHC M8 screws and not on threading.



§ Respect the order of the washers at the time of the assembly of the 6 fixing screws of the DUC propeller hub.

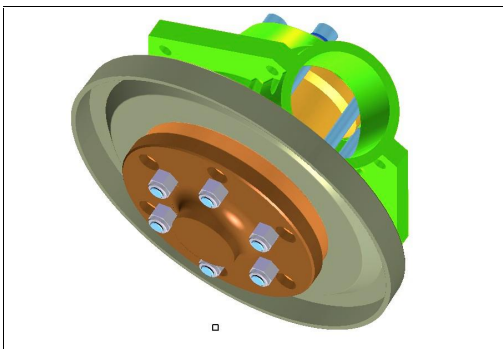
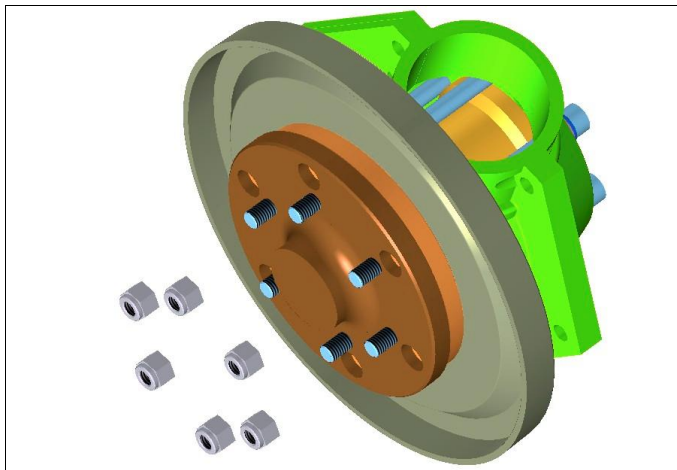
§ Mount and tighten the 6 CHC M8 screws of fixing hub in the 6 M8 tapped holes of distance between centers  $\varnothing 75\text{mm}$  of the ROTAX propeller shaft.

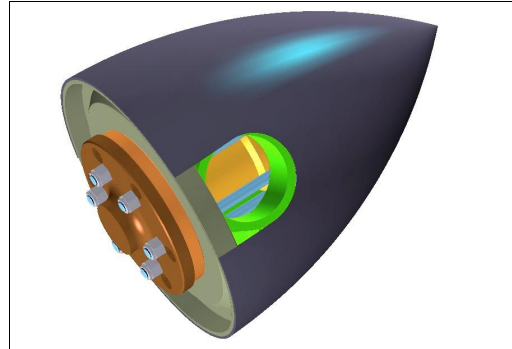
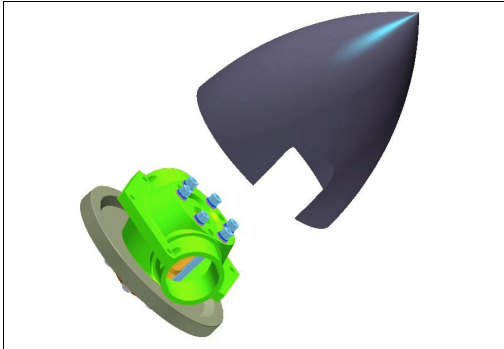
**TIGHTENING**  
 2.5 Kg/m  
 25 Nm



§ Once the 6 CHC M8 screws tightened, mount and tighten the M8 NILSTOP nuts on the back of the ROTAX propeller shaft.

**TIGHTENING**  
 2.5 Kg/m  
 25 Nm

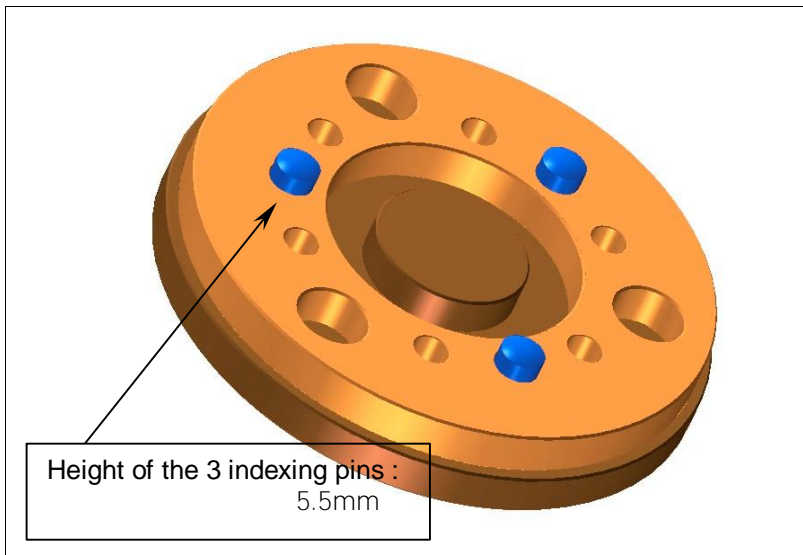




§ Carry out the assembly of the DUC spinner on the mounting plate by positioning correctly the openings of blades.

### Assembly of the 912 adaptor spacer without DUC spinner

#### Operation 1 : VERIFICATION OF THE ADAPTATOR SPACER.

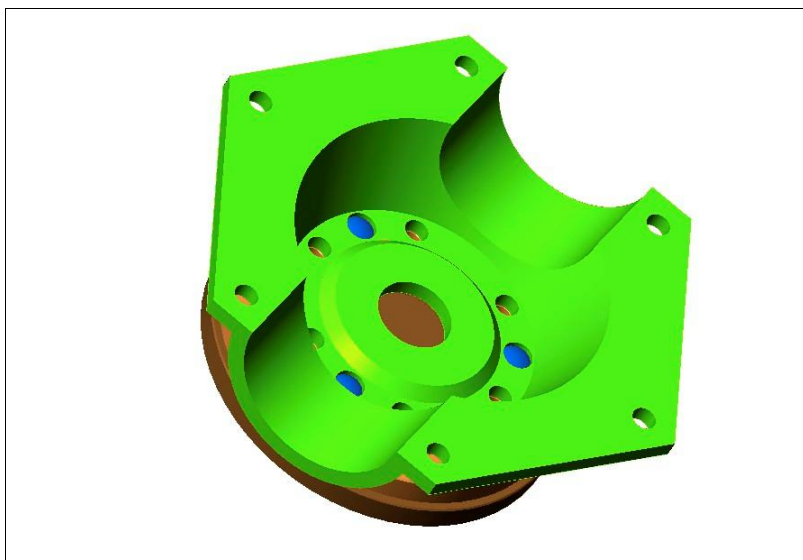


#### VERIFICATION :

In the case of the assembly without DUC spinner mounting plate, the height of the 3 indexing pins  $\varnothing 10\text{mm}$  is of :

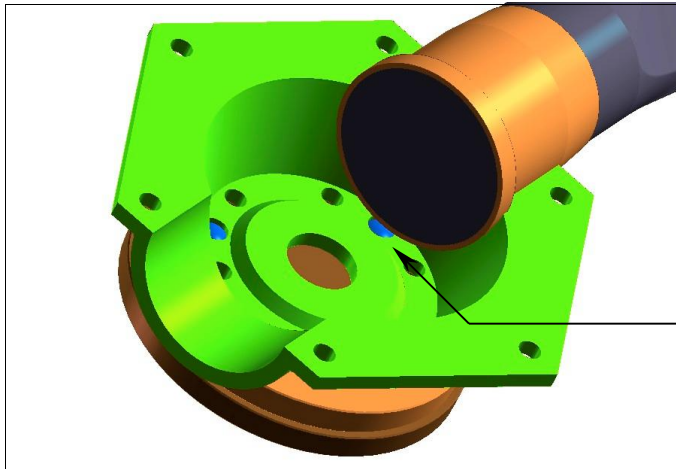
**5.5 mm**

Position the spacer on the ROTAX propeller shaft old generation in the same way at previously.



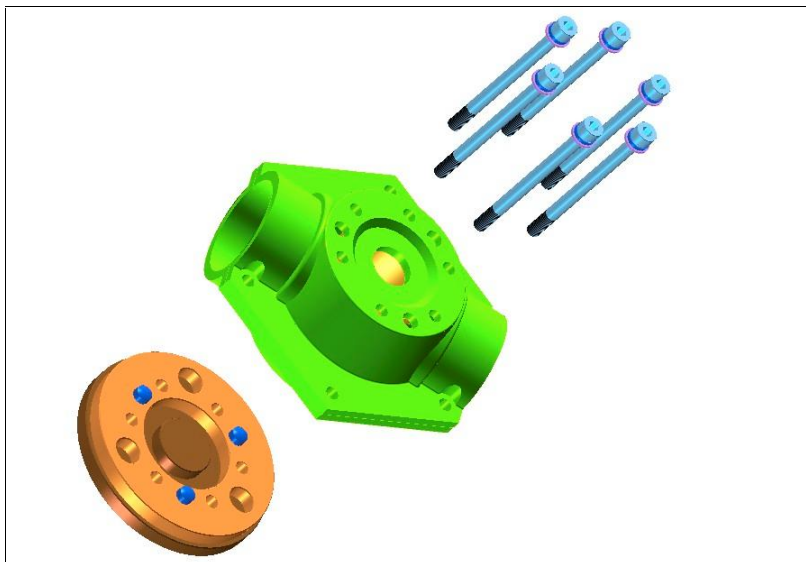
Index the  $\frac{1}{2}$  lower hub with the 3 indexing pins  $\varnothing 10\text{mm}$  on the adaptor spacer.

With a height of 5.5mm, the head of the 3 indexing pins must be tangent with the lower face of the  $\frac{1}{2}$  hub.



If the head of the indexing pins  $\varnothing 10\text{mm}$  exceeds, it risks to damage the ring of blade and especially to put out of order the angle of attack of the propeller.

Operation 2 : *FIXING OF THE COMPLETE HUB ON THE ADAPTATOR SPACER .*



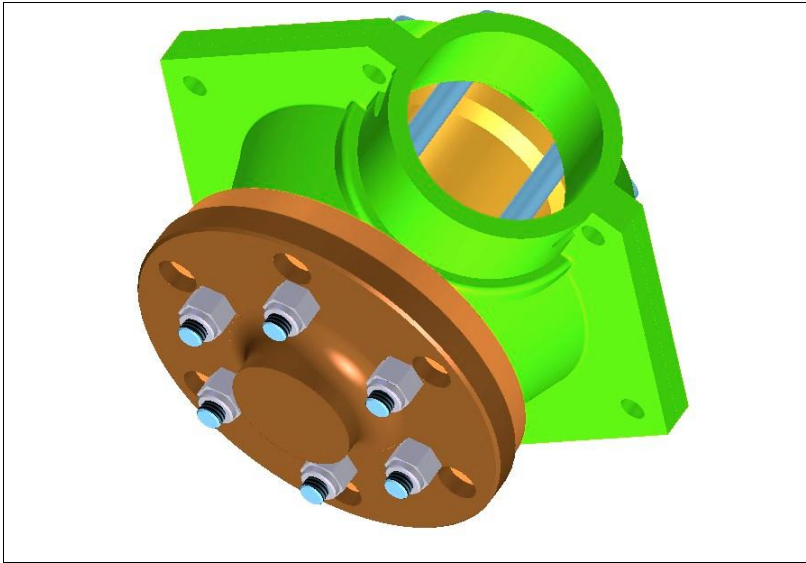
§ Once the checking carried out, position the complete hub on the spacer by indexing it on the 3  $\varnothing 10\text{mm}$  pins.

§ Mount and tighten the 6 CHC M8 screws of fixing hub in the 6 M8 tapped holes of distance between centers  $\varnothing 75\text{mm}$  of the ROTAX propeller shaft.

*Attention with the order of the washers on the 6 fixing screws of the hub.*

**TIGHTENING**

2.5 Kg/m  
25 Nm



§ Once the 6 CHC M8 screws tightened, mount and tighten the M8 NILSTOP nuts on the back of the VERNER propeller shaft.

**TIGHTENING**

2.5 Kg/m  
25 Nm

*If you note anomalies of assembly or operation, not undertake flight and contact immediately the DUC-HELICES company.*

*The accessories of assembly and the DUC propeller must be assembled in accordance with the technical notes of the DUC company.*

*The non-observance of these data would release from any responsibility the DUC company.*



Chemin de la Madone  
69210 LENTILLY - FRANCE  
Tél : 00-33-(0)4-74-72-12-69  
Fax : 00-33-(0)4-74-72-10-01  
[Contact@duc-helices.com](mailto:Contact@duc-helices.com)

Lentilly,  
March, 17<sup>th</sup> 2008

**Our Ref.** : VD/SC/CDH020-2008

**Re.** : Assembly of our spacers on 2 strokes engines (ROTAX 503 or 582 engines)  
and 4 strokes (ROTAX 912, 912S and 914 engines)

**Dear Customer,**

We remind you some indications to be respected during the assembly of our adaptator spacer and our intermediary spacer on your machines.

**Engines 4 strokes (ROTAX 912, 912S and 914) :**

**REMINDER :** *On these engines, the propeller shaft of origin is made up of :*

- 6 holes of 8 mm at a length from the center of 75 mm
- 6 holes of 13 mm at a length from the center of 101.6 mm.

If you want to fit a spacer between the propeller shaft and our propeller' hub, you have to fit a 912 H adaptator spacer (available in 10, 30, 45, 50 or 80 mm) with the ROTAX pawns ( $\varnothing$  13 mm).

You can also add a 912 H intermediary spacer (available in 30, 40 or 60 mm) if the spacing is not sufficient.

**YOU MUST NEVER FIT AN INTERMEDIARY SPACER (INTEND TO 2 STROKE ENGINES) ON A 912, 912S or 914 ENGINE BECAUSE OF A RISK OF SHEARING. THEN, THE SCREWS CAN BREAK IN FLIGHT.**

**Engines 2 strokes (ROTAX 503 or 582):**

If you want to fit a spacer, we remind you that you have to fit the intermediary spacer - 6 holes of 8 mm at a distance from center of 75 mm (available in 30 or 60 mm).

**The non respect of all these indications would discharge the company DUC HELICES from any liability.**

If you need any further information with regard to this note, please don't hesitate to contact us or our international representative: France Aviation Ltd, 0800 AVIATOR (NZ Only), +64 21887205, [contactus@franceaviation.co.nz](mailto:contactus@franceaviation.co.nz).

Best Regards

**Vincent DUQUEINE**  
Manager