

## SERVICE BULLETIN No. 02/2012 EN

Page: 1 Pages: 3

DATE: 08 NOV 2012

SUBJECT: REQUIRED TIME BETWEEN PROPELLER OVERHAULS (TBO) INTERVALS

PROPELLER MODEL AFFECTED: KW-20, KW-21, VAR 2, VAR 3, VAR P, SR 200-J/2, SR 200-J/3, SR 200, SR 116, SR 3000/2, SR 3000/3, SR 3000-J/2, SR 3000-J/3, SR 2000, SR 2000D, SR 3000N-E/2, SR 3000N-E/3, VARIA 165, VARIA 170, WINGLET 136, WINGLET 175, DIRECT 136, PROPULS AE, PROPULS AES, KLASSIC 160, KLASSIC 170, EFFIC 170

SERIAL NUMBERS AFFECTED: All serial numbers

### **SERVICE MANUAL AFFECTED:**

Users Manuals of the propellers type:

UM-04 ((KW-2(x)), UM-05 (VAR, ser.), SR 200-J/2, SR 200-J/3, SR 200, SR 116, SR 3000/2, SR 3000/3, SR 3000-J/2, SR 3000-J/3, SR 2000, SR 2000D, SR 3000N-E/2, SR 3000N-E/3, VARIA 165, VARIA 170, WINGLET 136, WINGLET 175, DIRECT 136, PROPULS AE, PROPULS AES, KLASSIC 160, KLASSIC 170, EFFIC 170

#### REASONS:

The propeller is subject to centrifugal and aerodynamic forces throughout the time the aircraft is operated; it is also subject to vibration load, both caused by propeller's own vibration, and vibration induced by the engine. The propeller is primary design element of an aircraft and its failure may cause strong and dangerous vibrations which can in turn damage the aircraft and/or lead to forced landing.

Although each propeller type is thoroughly tested during its design process, both in laboratory and in practical operation - and although its properties and characteristics must always be proven to aviation authorities before issue of the type certificate - it is always necessary to pay due attention to the condition of specific propeller during its operation. Propeller operation is always demanding and sometimes also includes extreme loads, be it caused by pilot input, weather conditions, and combination thereof. For this reason, the propeller always deserves due care and service, defined in its accompanying documentation and instructions issued by its manufacturer. These also define mandatory checks and inspections.

We can say that current flight operations of microlight aircraft are much more demanding than a few years ago - as far as propeller loads are concerned - both due to increasing numbers of flight hours accumulated during calendar year, and also due to increasing speed and agility of the aircraft. Our statistics show that certain propellers made by WOODCOMP are reaching 10 - 15 years of continuous use with 2000 and even more operating hours.

Our findings during service checks show that sometimes, maintenance prescribed by the manufacturer was not always performed during operations. Based on this experience, we think it is necessary to subject all our propellers to rigorous testing including new types of checks during service inspections performed by us; this should discover any problems before they manifest during operation. WOODCOMP has its own testing facility, with certified testing machinery and methodologies, which are capable of determining (with high probability) whether the propeller can be released into subsequent (safe) operation.

Because aviation authorities require us to define and publish the intervals for overhauling the propellers, a Service bulletin is issued to define these intervals. These are defined primarily to facilitate increased safety and satisfaction of users of WOODCOMP propellers.

The intervals defined of this Service bulletin can be changed based on progress of technology and evolving operational experience; the intervals specified in the most current edition of this Service bulletin always apply. Any deviations from the requirements of this Service bulletin are subject to authorization by the respective aviation authority.



# SERVICE BULLETIN No. 02/2012 EN

Page: 2 Pages: 3

# **DETERMINED TIME BETWEEN OVERHAULS (TBO):**

PROPELLER MODEL	TIME BETWEEN OVERHAULS (TBO)		
	operating (oper. hours)	calendar (months)	
FIXED WOODEN PROPELLERS			
KR, ser., SR, ser.	3000	120	
ADJUSTABLE OR VARIABLE PITCH PROPELLER			
KW-2(x)	1200	60	
VAR, ser.	1000	60	
SR 200-J/2	900	48	
SR 200-J/3	900	48	
SR 200	1200	60	
SR 116	1200	60	
SR 3000/2	1200	60	
SR 3000/3	1200	60	
SR 3000-J/2	900	48	
SR 3000-J/3	900	48	
SR 2000 , SR 2000D	1200	60	
SR 3000N-E/3	1200	72	
SR 3000N-E/2	1200	72	
Varia 165	1000	60	
Varia 170	1000	60	
Winglet 136	950	60	
Winglet 175	950	60	
Direct 136	950	60	
Propuls AE	950	60	
Propuls AES	950	60	
Klassic 160	950	60	
Klassic 170	950	60	
Effic 170	950	60	

8.957



## SERVICE BULLETIN No. 02/2012 EN

Page: 3 Pages: 3

### **IMPLEMENTATION INSTRUCTION**

- Defined TBO (Time Between Overhauls) are based on operating hours and/or calendar months, whichever occurs first. The interval always begins with date of manufacture or date of last overhaul, mentioned in propeller's operating manual.
- 2. Operating hours TBO is maximum allowed number of operating hours before next overhaul.
- 3. Calendar months TBO is maximum allowed number of calendar months before next overhaul.
- 4. An overhaul must be performed as soon as the limit of operating hours and/or calendar months stated in table mentioned above is reached.

An overhaul must also be performed in the following cases:

- The propeller has contacted the ground and/or foreign object;
- The propeller has been overspeed (see max operating rpm stated in User manual);
- The propeller has been overtorque (see max driving torque stated in User manual);
- The propeller has been damaged and the damage has not been removed by maintenance operations listed in operating manual;
- The propeller has no record of operating hours and/or calendar months.
- 5. An overhaul must be performed according to the respective Overhaul manual. WOODCOMP propeller overhaul may only be performed by manufacturer and/or his authorized service center.
- 6. Some parts of selected propeller types may have their own service life, i.e. on reaching the defined TSN (Time Since New), such part(s) must be replaced. Parts with limited service life are always changed during overhaul.
- 7. In case that the manufacturer or his authorized service replaces propeller blades before reaching TBO, all operations stated in the respective Overhaul manual must be performed as well, and both operating TBO and calendar TBO are reset to zero.

Manager Accountable	Sign:	Date:
Name: Aleš Křemen	16,000	08 NOV 2012