

Subjet : Examination of the starter gear for cracks.

Engines affected : Motorised glider engines, all engines of type 505 and 505 A.

Reason : There is a certain possibility of crack formation starting from the root of tooth.

Priority, tasks : 1) Daily visual check as illustrated on page 2.
2) Scrutinize with a magnifying glass every 25 hours of operation.
3) In case of detected cracks
- no more engine starts allowed,
- remedy according to the following instructions,
- send damaged parts to local dealer or Rotax.



Weight and centre of gravity : Not affected.

Remarks : - Order parts from Rotax as required.
- This specific engine service has to be carried out by a licensed and qualified person and confirmed in the aircraft logbook.

Gunskirchen, 1989 03 08

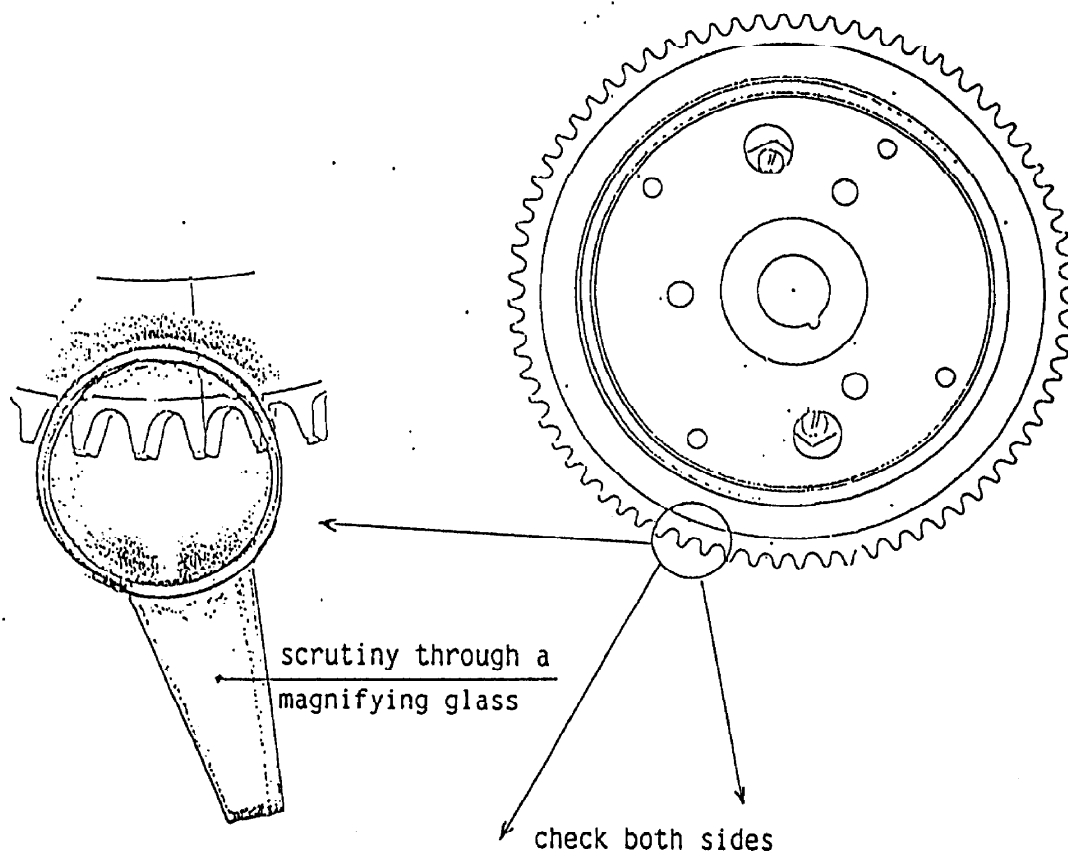
Approved by
Bundesamt für Zivilluftfahrt

13. April 1989

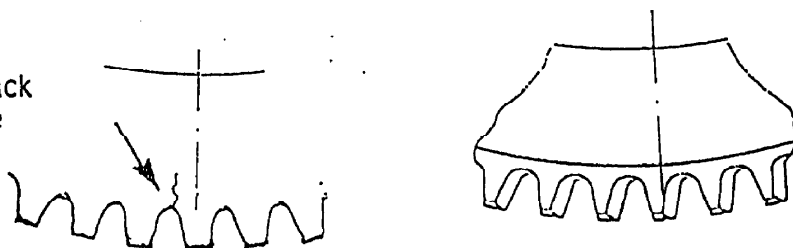



Examination of the starter gear

Visual check on non running engine for cracks beginning at tooth root.



thats how a crack would look like

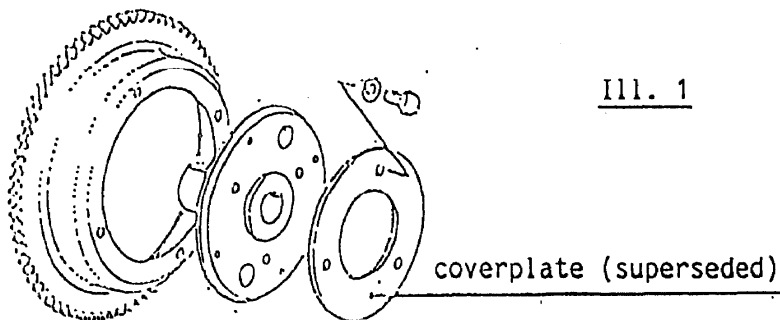


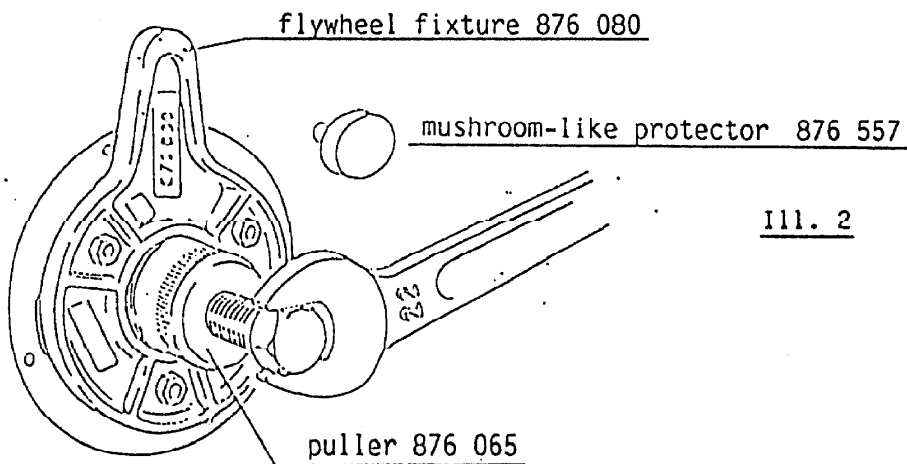
Instructions for the removal and refitting of magneto
flywheel ass'y and exchange of starter gear

1) Disassembly:

- 1.1. If coverplate fitted, remove it (ill. 1).
Re-use not foreseen.
Tool: Socket spanner 13 A/F
- 1.2. Fasten flywheel fixture with three hex. HD. screws M8 x 16
to flywheel (ill. 2).
Tool: Flywheel-fixture 876 080
socket spanner 13 A/F
- 1.3. Remove hex. nut M22 x 1,5 from crankshaft (ill. 5).
Tool: Socket 30 A/F on torque wrench or on suitable extension
- 1.4. Place protection cap or mushroom-like protector on crankshaft
end, fasten puller to flywheel fixture and pull off flywheel.
Tool: Protector 876 557
puller 876 065
open end or socket spanner 22 A/F

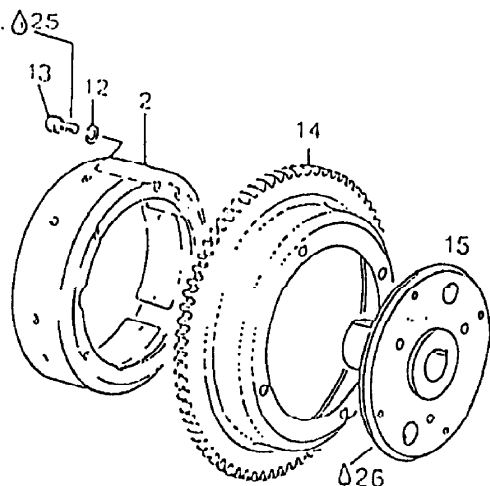
Advice: If need be, break bond of flywheel to crankshaft taper
by carefully heating up to 120°C.





2) Exchange of the starter gear

- 2.1. Strip flywheel assembly to its components of magneto housing item 15, starter gear item 14 and magneto ring item 2 after removal of the four allen screws M6 x 11,5 item 13. Clean mating surfaces, remove Loctite residues.
- 2.2. Fit new starter gear 995 956, apply Loctite to mating surfaces, tighten screws M6 with 10 Nm.



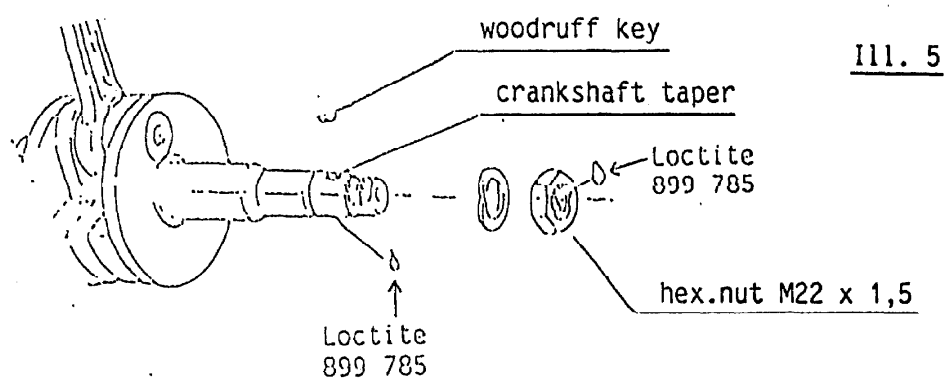
item	part no.	designation
2	993 500	magneto ring
12	945 751	lockwasher A6 DIN 123
13	840 370	allen screw M6 x 11,5
14	935 956	starter gear 77 t
15	865 638	magneto housing
25	899 785	Loctite 221
26	899 788	Loctite 648

3) Refitting of flywheel assembly:

- 3.1. Degrease taper of crankshaft and magneto housing with suitable degreasing agent.
- 3.2. Insert woodruff key (ill. 5).
- 3.3. Apply Loctite 221, 899 785, on crankshaft taper.
- 3.4. Fit flywheel assembly on crankshaft.

Important: Make sure that armature plate ass'y and flywheel ass'y is clean and free of foreign matter.

- 3.5. Secure hex. nut M22 x 1,5 with Loctite 221, 899 785, tighten with 140 Nm.



- 4) Meet three hours curing time for Loctite, prior to engine start.