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FITI ECO COMPETITION

OPERATING INSTRUCTIONS AND TECHNICAL DESCRIPTION

Ground adjustable two- and three-blade propellers
for sporting flying equipment

Serial number: *3LR φ 158 v50072 / 2012*

Date of purchase:

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27.11.2012

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CONTENTS

1. TECHNICAL DESCRIPTION
2. WARRANTY CONDITIONS
3. TECHNICAL SPECIFICATIONS
4. INSTALLATION INSTRUCTIONS
5. PROPELLER DISASSEMBLY
6. OPERATION
7. REPAIRS
8. RECORDS CONCERNING MOUNTING AND REGULAR CHECKS
9. SERVICE AND REPAIR RECORDS



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1. TECHNICAL DESCRIPTION

General

Fiti Eco Competition are ground adjustable two- and three-blade propellers with composite blades.

The propeller hub, which is divided into two parts, holds the steel shanks on the blade roots using the M6 screws.

Propeller can be delivered with spinner with the driver and fixing screws (which is not part of the standard delivery).

2. WARRANTY CONDITIONS

The manufacturer provides a warranty on the propeller for the duration of 200 flight hours (however, no more than 24 months after the date of purchase), subject to performing regular checks.

3. TECHNICAL SPECIFICATIONS

3.1 Engine types

The propellers are designed for the following engines:

ROTAX 912
ROTAX 447
ROTAX 532
ROTAX 582
ROTAX 618

Composite propellers, ground adjustable, type designation
FITI ECO COMPETITION

Diameter 1580 mm, maximum allowed rpm – 2900 rpm
Diameter 1680 mm, maximum allowed rpm – 3000 rpm
Diameter 1700 mm, maximum allowed rpm – 2900 rpm
Diameter 1770 mm, maximum allowed rpm – 2400 rpm

Type certificate registered with LAA ČR [Amateur Flying Association of the Czech Republic]
under mark:

ULL – 03/99

3.2 Operating limits

- Altitude 0 – 5000 m MSA
- Operating temperatures range from -25°C to +35°C
- Air humidity 30 – 98% relative humidity
- Maximum load factor from -2.65 G to +5.3 G
- Operation under icing conditions prohibited

The propeller is a part of a sporting flying equipment whose operator solely is responsible for its usage.

4. INSTALLATION INSTRUCTIONS

Description

The propeller is delivered dismantled.

Insert each blade into the propeller hub according to marks and slightly tighten six M6 screws. Numbers on the center and the blade must always correspond to each other. On the flat plate make an alignment of blade angles using the angulometer. Make sure that the end shank is correctly positioned in lock of the propeller hub (by pulling each blade).

Make an alignment to the required angle on semi-diameter 0.75 R.

Maximum out of blade alignment must not exceed 0.3°.

After the angle alignment tighten the M6 screws with a moment of 9 Nm.

The propeller aligned in this way can be mounted on engine.

The propeller can be fitted on pitch circle of Ø 75 or 101.6 mm.

Alternately tighten the M8 screws with moment of 25-30 Nm in steps.

Secure screw heads one another with binding wire.

When installing the propeller spinner, the rear driver of spinner must be inserted between the engine flange and the propeller hub.

5. Propeller disassembly

Dismantle the spinner. Remove the securing (binding wire) and then release six M8 screws.

Dismantle blades off the propeller hub only in inevitable cases.

During reassembling it is necessary to use a new securing.

6. OPERATION

6.1 Description

During the operation, the propeller fixing must be checked regularly.

Remove the spinner, remove the screw securing.

Check, how tightened the screws are – ALWAYS USE A TORQUE WRENCH!

Secure the screw heads using a new wire and install the spinner back to its position.

Record the check to the "RECORDS CONCERNING INSTALLATION AND REGULAR CHECKS", see below.

Perform the first check after 5 flight hours and then after 25 flight hours.

After the first 50 hours of operation or after 12 months from the date of putting into operation the propeller must be checked by the manufacturer.

The subsequent checks are performed by the owner (operator) after every 50 hours of operation.

6.2 Daily check

Before starting or after completing every flying day, perform the check of:

- the correct fixing of blades in propeller hub;
- the leading edge and the trailing edge for any damage (cracks, unstuck parts);
- the cleanliness of each blade (polluted by insects) and the overall condition of the surface.

Caution

When moving the aircraft, the propeller must be held on the blade roots.

Moving the aircraft holding the blade ends is prohibited!

7. REPAIRS

General

The owner (operator) may repair only minor surface damages on the blades, no deeper than 0.4 mm.

The area to be repaired must not exceed 1.5 sq.cm.

Other repairs can be performed by the manufacturer only. After such a repair, the manufacturer will correct the balance of the propeller.

7.1 Small repair – instructions

1. Roughen the area surrounding the damage by sandpaper.
2. Remove any grease from the damaged area using pure acetone.
3. Use a putty knife for filling the damaged area by a two-part polyester self putty. The ambient temperature must be within the range from 20 °C to 25 °C.
4. Let the putty harden.
5. Then use sandpaper to grind the putty to the required shape.
6. Protect the repaired area using some putty in the form of aerosol.

The type and description of any repair must be recorded by the owner (operator) into the propeller "SERVICE AND REPAIR RECORDS", see below.

8 MAINTENANCE AND REPAIR RECORDS

General

Claims for maintenance of props are minimal, as it only consists of regular inspections and checks.

1 - 50 hours after the inspection carried out by the owner itself by removing the propeller cone, and drop the appropriate bolt torque under section 4 (installation).

2 - Control by the manufacturer each year or 150 hours.

Clean the surface of the propeller perform lukewarm water with the addition of non-aggressive detergent.



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8. Records concerning mounting and regular checks

Date	Description	Signature



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9. Service and repair records

Date	Description	Signature