



NO: SD-SC-005

DATE: 2008-06-09

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SAFETY DIRECTIVE -MANDATORY-

Czech Aircraft Works s.r.o.
Na Zahonech 1177
Building A10s
686 04 Kunovice -Airport
Czech Republic
tel: 00 420 572 543 456
fax: 00 420 572 543 692

REV: -

DATE: -

MODEL AFFECTED: SPORTCRUISER

SUBJECT: NOSE LANDING GEAR – SHIMMY

**ASSEMBLED
AIRCRAFTS AFFECTED:** All SportCruisers

KITS AFFECTED: All SportCruiser Kits

COMPLIANCE:

- a) Within 10-15 HRS (aircrafts first released to service) or immediately after receipt of this directive (aircraft released to service before this directive issued)
- b) After every shimmy occurrence as soon as practical
- c) Every 100 HRS/Annual inspection

DESCRIPTION:

Several occurrences of nose landing gear shimmy have been identified by different operators and reported to Czech Aircraft Works. A damage of nose gear leg that may be caused by shimmy was found in two cases at least. This SAFETY DIRECTIVE provides information for preventing shimmy and proper maintenance of the nose landing gear.

APPROVAL:

The engineering design aspects of this bulletin are Czech Aircraft Works s.r.o. approved.

MANPOWER:

Approximately 30 minutes are required to complete this safety directive.
Man-hours are based on hands-on time, and may vary with personnel and facilities available.

WARRANTY:

Not affected.

MATERIAL:

PART NUMBER	NOMENCLATURE	QUANTITY
AN380-4-5	COTTER PIN	1
40x20.4x1 DIN2093	SPRING WASHER	2 – IF NECESSARY

CONSUMABLE MATERIAL:

PART NUMBER	NOMENCLATURE	QUANTITY
SOLVENT	ACETONE, MEK, ISOPROPYL ALCOHOL	10 ml

SPECIAL TOOLS:

SPRING SCALE, range 0-10 kg



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WEIGHT AND BALLANCE:

Not affected.

ELECTRICAL LOAD DATA:

Not affected.

REFERENCES:

SPORTCRUISER Maintenance and Inspection Procedures:
Chapter 2, Time limits / maintenance checks
Chapter 8, Main landing gear

PUBLICATIONS AFFECTED:

SPORTCRUISER Maintenance and Inspection Procedures.

ACCOMPLISHMENT INSTRUCTIONS:

1. Check nose landing gear tire inflation.

Tyre and tube	Prescribed pressure
Air Trac – 5,00-5 inch	0.8 ^{+0.2} bar (11.6 ^{+2.9} psi)
SAVA - 5,00-6 inch	1.0 ^{+0.2} bar (14.5 ^{+2.9} psi)

NOTE

DO NOT EXCESS PRESCRIBED PRESSURE VALUE. OVERPRESURED WHEEL
CAUSED SHIMMY

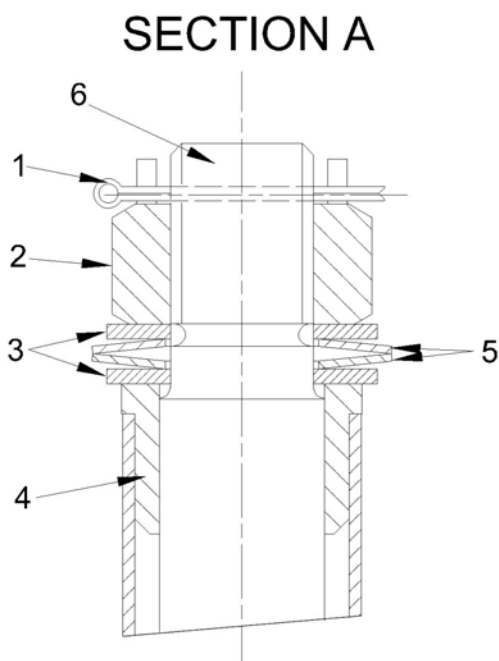
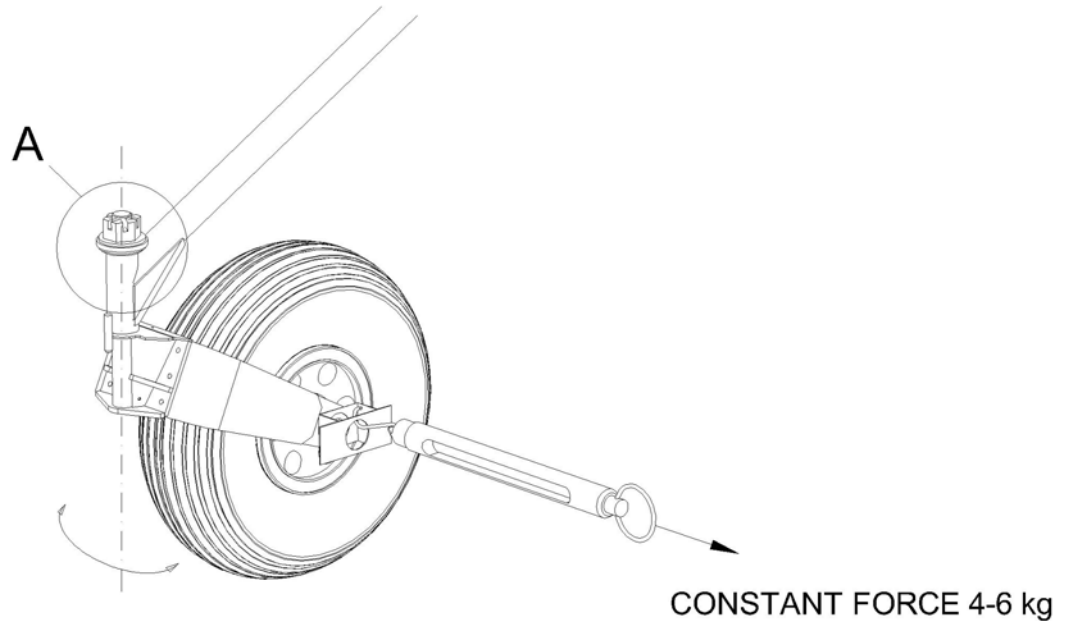
2. Check wheel fork rotation friction

- a) Remove nose gear cover.
- b) Check condition of nose gear leg, nose gear fork, shock absorber.
- c) Check condition of spring washers (5). Keep washers free of lubricants. Remove cotter pin (1) and loose nut (2) and clean washers if necessary, use some solvent for degreasing.
- d) Attach spring scale to axle as shown on Fig.1.
- e) Unload nose landing gear.
- f) Torque castellated nut so a constant force of 4-6 kg is required to rotate nose wheel fork and wheel assembly. Take attention that nut does not spin against spindle (6) because there is a risk of cotter pin shear. In this case you may drill a new hole $\varnothing 2.5$ mm for the cotter pin in spindle in a suitable position.
- g) If necessary, install new spring washers and repeat procedure e).
- h) Install new cotter pin.
- i) Install nose wheel cover.

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3. Restore aircraft to the airworthy condition.

4. Annotate aircraft records to reflect compliance with this safety directive.



LEGEND:

1. COTTER PIN AN380-4-5

2. NUT AN 310-12

3. WASHER SG0069N

4. BUSHING SG0070N

5. SPRING WASHER 40x20.4x1 DIN 2093

6. SPINDLE SG0055N

Fig. 1