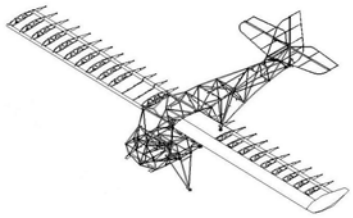


KITPLANES FOR AFRICA
www.saplanes.co.za
P.O.Box 326
KOMATIPOORT
1340
South Africa
Rick Burrough 082 4100032 Stefan Coetzee 082 6018970
info@saplanes.co.za

SERVICE BULLETIN

AIRCRAFT EFFECTED: Bushbaby and Explorer

BULLETIN NUMBER: SB010

ORIGIONAL ISSUE DATE: 04-04-02

REVISION DATE: 18-11-08

SUBJECT: Nose landing gear failure

APPLICABILITY: All Bushbaby and Explorer nose-wheel airframes.

COMPLIANCE: Mandatory

Overview

This design of the castoring nose-wheel assembly is widely employed on other tail-wheel type fuselages and limitations on the use of this design are not unique to our aircraft.

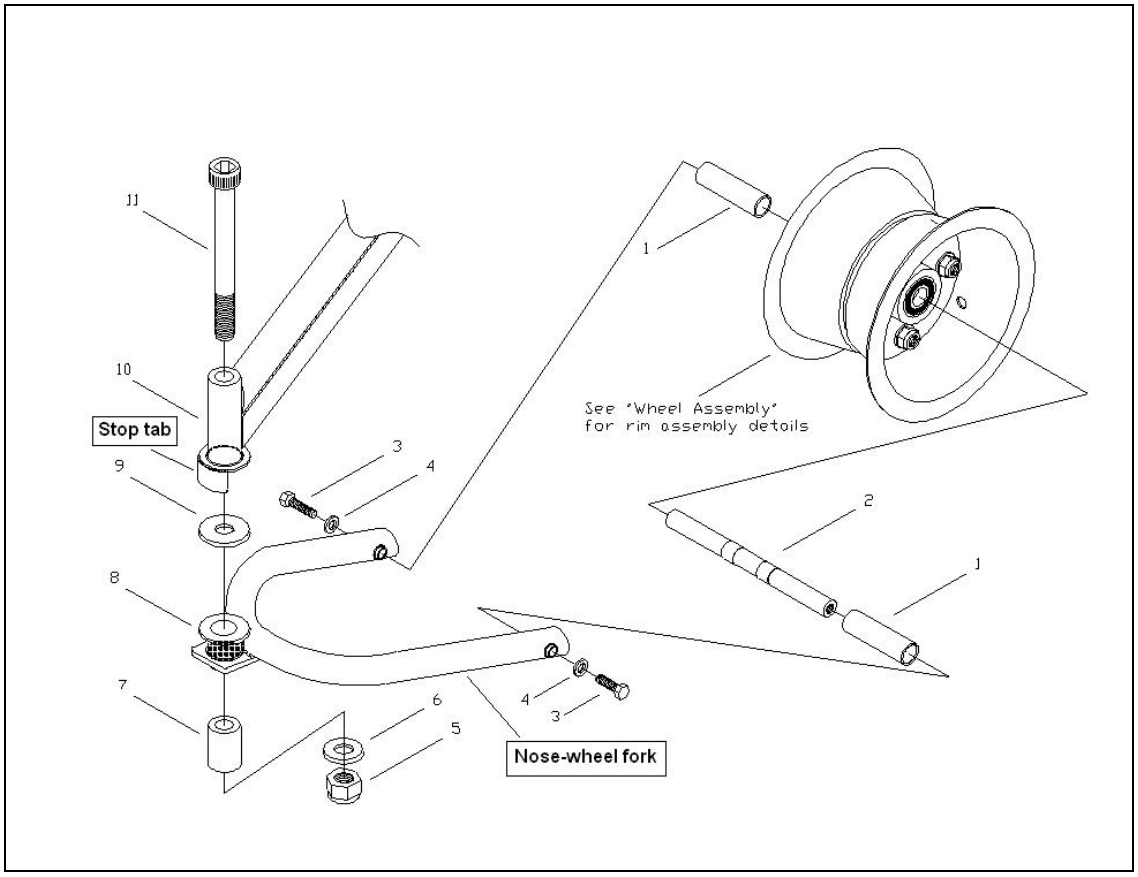
Operators are respectfully reminded that the Bushbaby and Explorer airframes were designed originally as tail-wheel fuselages.

The nose-wheel was incorporated into the design at the request of some customers and this configuration was adopted with the proviso that the nose-wheel aircraft only be operated out of smooth runways and taxiways.

Tail-wheel undercarriages are far more suitable for rough field use.

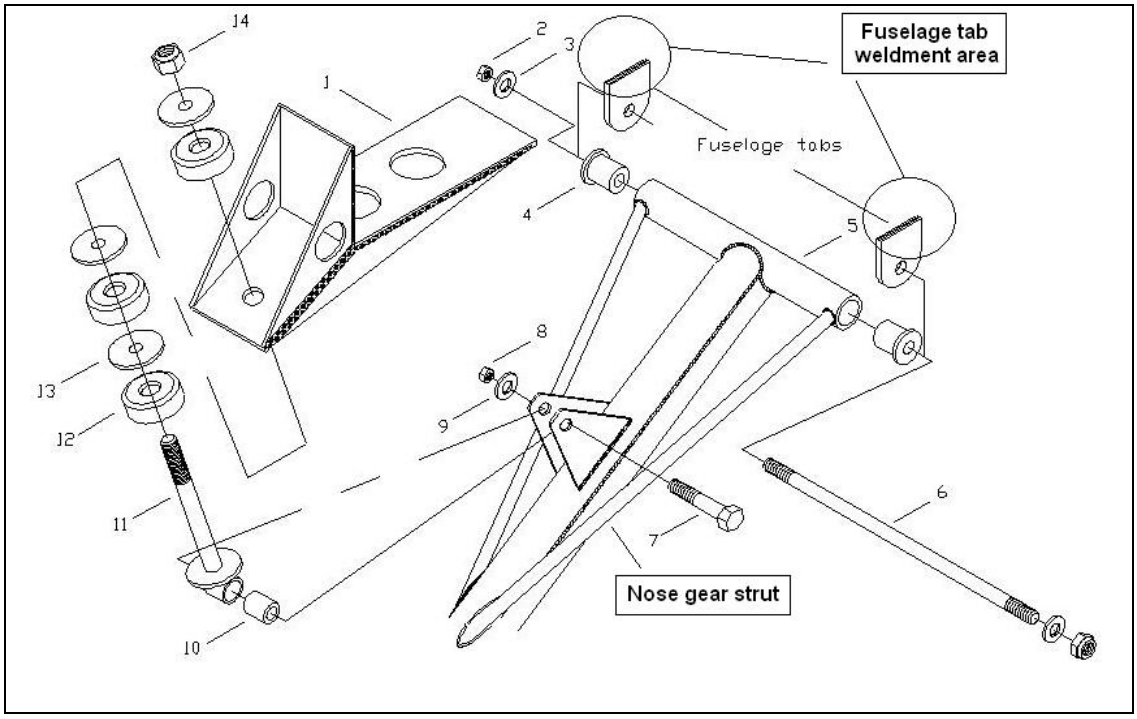
By the nature of its design requirement for ease of installation as well as reconfiguration to tail wheel if desired, the nose-wheel strut is very intolerant of excessive side loads.

The nose-wheel fork stop tab limits left and right castoring of the nose-wheel in order to maintain propeller tip clearance. See diagram on the next page.



Nose landing gear fork assembly

Problem: It has become apparent that some nose-wheel Bushbaby and Explorer operators are operating their aircraft beyond the design limits of the nose-wheel assembly during the ground handling phase.
If a main-wheel brake is applied to lock the main-wheel and force a very tight turning circle the nose-wheel fork will contact the stop tab which will in turn exert a side load on the nose-strut. This side load can quickly become excessive and repeated turns like this will lead to cyclic fatigue on the weld points of the fuselage tabs. See diagram.
Failure of the fuselage tab weldments will lead to collapse of the nose-wheel strut, possible prop-strike, damage to the engine cowling and engine mount.



Nose landing gear top section

Solution: Incorporate an inspection of the nose-wheel fork stop tabs for signs of deformation due to forced small turning radius on every pre-flight inspection.
Should deformation of the stop tab be found, the aircraft should not be flown until a full and detailed inspection of the fuselage tab weldments have been carried out. The belly fabric may have to be cut slightly in the area of the tabs to allow full inspection.
Always taxi with full nose up deflection on the elevator (stick back)
Restrict taxi turns to walking pace speed, particularly when taxiing down hill.
If taxiing over uneven ground is unavoidable (aircraft rocks from side to side) taxi very slowly or better still shut down and manhandle the airplane, lifting weight off the nose-wheel.