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## **SERVICE BULLETIN**

**AIRCRAFT EFFECTED:** Bushbaby and Explorer

**BULLETIN NUMBER:** SB023

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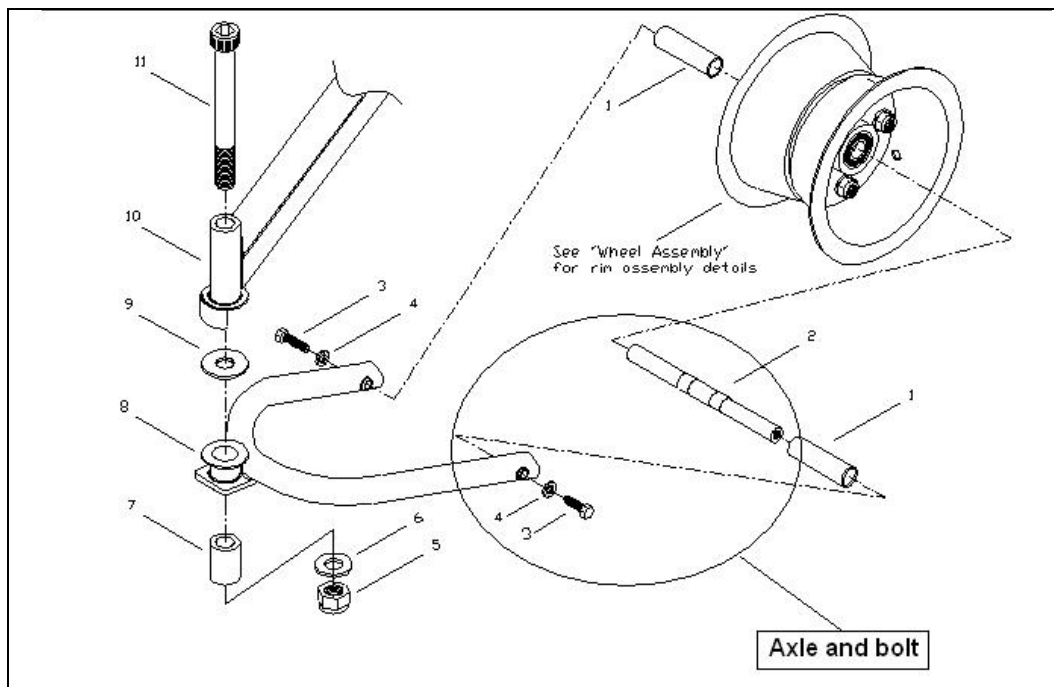
**SUBJECT:** Nose-wheel axle retaining bolts.

**APPLICABILITY:** All Bushbaby and Explorers fitted with nose-wheels.

**COMPLIANCE:** Mandatory

**Problem:** Nose-wheel axles sold before November 2007 had the axle bolts carrying the shear load on the threaded area.  
No failure has been reported but there is a better way to secure the nose-wheel axle in the fork.

**Solution:** The bolt length needs to be increased so that the shank protrudes into the axle thus letting the bolt shank carry any shear loads.  
New axles can be ordered from the factory or alternately follow this procedure to fix the problem.



Nose-wheel axle assembly

The axle needs to be counter drilled to allow the shank to protrude into the shaft and bear the shear load.

- Measure the depths of the thread on each side of the axle. It should be 25mm
- Counter sink the threaded section with an 8mm drill to a depth of 5-7mm. *There must be at least 15mm of thread left.*
- Replace the M8 bolt with one that is 5-10mm longer so that the shank protrudes past the fork by 5-7mm. Space with washers under the bolt head to get the right length of shank. (no more than 3 washers)
- Cut any excess thread off from the end of the bolt, ensuring that the part protruding from the fork is 25mm long.
- Install the axle and bolts, ensuring that the bolts do not bottom out in the hole and that the shank does not bind into the thread of the shaft.
- Drill a 1.5 mm safety wire hole through the bolt heads.
- Once satisfied, de-grease the shaft holes and bolt. Apply loctite and torque the bolt to 25Nm.
- With torque seal or marking pen, mark the bolt head and fork. This gives a visual reference if the bolt has started working loose.
- Safety wire the bolt heads to the nose-wheel fork.