

SERVICE BULLETIN



Service Bulletin No.: DA20-32-04 Rev 1
(supersedes DA20-32-03 Rev 0)

Date Issued: 09 JUN 2008

Title: Inspection of NLG Elastomer Spring and
Installation of Replacement Elastomer Elements

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1. **ATA Code:** 3220
2. **Effectivity:** DA20-A1 aircraft.
3. **General:** Some DA20-A1 aircraft have reduced propeller clearance as a result of shrinkage of the elastomer elements in the nose landing gear spring assembly. An alternate material is now available for replacement as required.
Part 1 of this bulletin calls for verification of compliance with service bulletin DA20-32-03.
Part 2 of this bulletin calls for measurement of the propeller clearance.
Part 3 calls for inspection of the NLG spring assembly for shrinkage of the elastomer elements.
Part 4 calls for the replacement of the elastomer elements as required by Part 2.
4. **Compliance:** Compliance with Part 1 and 2 of this service bulletin is required at the next scheduled inspection but not later than July 30 2008. Compliance with Part 3 is recommended.
5. **Approval:** Engineering data referenced or contained in this service bulletin is approved as part of the type design.
6. **Labour:** Approximately 0.5 hours will be required to accomplish Part 1 of this service bulletin. Approximately 2.0 hours will be required to accomplish Part 2 and Part 3 of this service bulletin.
This estimate is for direct labor performed by a technician and it does not include setup, planning, familiarization, cure time, part fabrication or tool acquisition.
7. **Material:**

Part Number	Description	Qty
DV2-9032-23-01	NLG Rubber 50x40	5
DV2-9032-23-02	NLG Rubber 32x32	1
8. **Special Tools:** N/A
9. **References:** DA20 Aircraft Maintenance Manual, Document # DA201 (AMM).
10. **Accomplishment Instructions:**

Part 1 – Previous compliance with Service Bulletin DA20-32-03 Rev0

- 10.1.1 If spacer 20-3220-05-07 has been installed in compliance with service bulletin DA20-32-03 Rev0 then proceed to part 4.

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Part 2 - Check propeller ground clearance

- 10.2.1** Make sure aircraft is parked on a level surface.
- 10.2.2** Ensure magnetos are OFF.
- 10.2.3** Rotate propeller by hand in forward direction until blades vertical.
- 10.2.4** Push down on fuselage in front of vertical stabilizer to unload nose landing gear, then release and allow aircraft to sit level.
- 10.2.5** Measure clearance between propeller tip and ground.
- 10.2.6** If clearance is 25 cm (9.8") or more no further action is required. If clearance is less than 25 cm (9.8"), proceed to Part 3.

NOTE:

Continued inspections of the elastomeric spring and the journal in the elastomeric spring are still required as per DA20-A1 AMM (DA201 Chapter 05-20).

Part 3 – Inspect NLG Elastomer Spring Assembly

- 10.3.1** Remove engine cowlings in accordance with AMM.
- 10.3.2** Inspect NLG elastomer spring assembly for shrinkage or damage of the elastomer elements and damage to the cup washer spacers, part number 20-3220-05-03.
- 10.3.3** Push down on fuselage in front of vertical stabilizer to hold nose landing gear above the ground.
- 10.3.4** Push elastomer elements down until seated. If there is no gap between the elastomer springs and the disk (Figure 1), check for other possible causes for reduced propeller clearance such as a bent or damaged nose landing gear strut.
- 10.3.5** If there is a gap, proceed to Part 4.

Part 4 – Replace NLG Elastomers

- 10.4.1** Replace all five elastomer elements with five replacement elements, part number DV2-9032-23-01. Refer to AMM Chapter 32-20 page 4 and 5 for replacement instructions. If the two spacers 20-3220-05-07 were installed per service bulletin DA20-32-03 (at the bottom of the strut assembly), remove them.

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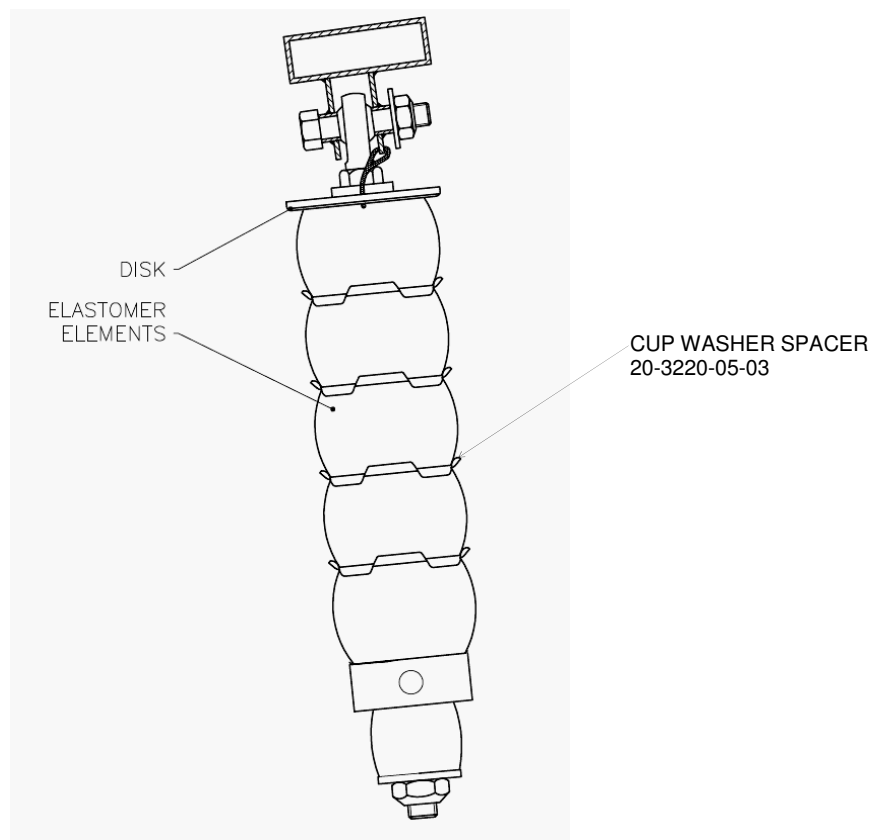
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11. Weight and Balance:

The weight and balance is not significantly affected by this Service Bulletin.

12. Availability:

Contact Diamond Aircraft.



**Figure 1 - NLG Spring after Assembly
(NLG Strut not shown)**

To obtain satisfactory results, procedures specified in this service bulletin must be accomplished in accordance with accepted methods and current government regulations. Diamond Aircraft Industries Inc. cannot be responsible for the quality of work performed in accomplishing the requirements of this service bulletin. Diamond Aircraft reserves the right to void continued warranty coverage in the area affected by this Service Bulletin if it is not incorporated.

If you no longer own the aircraft to which this service bulletin applies, please forward it to the current owner and send the name of the current owner to Diamond Aircraft Industries, Inc., at the address below

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