Service Bulletin SB-0021

Technical Portions FAA Approved

Epic Aircraft, LLC ◆ 22590 Nelson Road ◆ Bend OR 97701
Phone: 541-318-8849 ◆ Fax: 541-382-5125 ◆ Web: www.epicaircraft.com

Subject: Steering Damper Interference

ATA-Code: 32-20

Labor: 4 hours for inspection,
8 hours if rework is needed.

Effectivity: K003-K010

Affected Model(s): E1000

Due: The next scheduled service interval.

Compliance: Mandatory

Recurrence: No

1 BACKGROUND AND PURPOSE:

It has been found that the steering damper can make contact with the nose landing gear engine mount guide plates during extension and retraction.

This Service Bulletin gives instructions to inspect for indications of contact on the steering damper and rework to add clearance if needed.

2 REFERENCES:

Epic E1000 Airframe Maintenance Manual, PN SK05000000

3 WARRANTY:

For aircraft under warranty, parts and labor will be covered by Epic Aircraft, LLC if the work is performed within the compliance period and at an Authorized E1000 Service Center.

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4 TOOLS:

No.	Description	Qty	Epic Aircraft Supplied	Customer Supplied
1.	Common hand tools.		☐	☒
2.	Hydraulic Aircraft Jacks, 10,000lb capacity.	3	☐	☒
3.	Lifting Pins, PN FK07100001	3	☐	☒
4.	Hydraulic Service Cart, (MIL-PRF-83282 or MIL-PRF-87257) 2500 psi, 3.5 gpm capacity.	1	☐	☒

5 PARTS/MATERIALS:

No.	Part Number	Description	Qty	Epic Aircraft Supplied	Customer Supplied
1.	-	Type I, Class C1 or C2 epoxy primer conforming to MIL-PRF-23377	A/R	☐	☒

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6 INSTRUCTIONS:

A) Set the BATT 1 and BATT 2 switches to OFF.

B) Remove all external electrical power to the airplane (refer to the E1000 AMM PN SK05000000, chapter 24-40).

C) Using an inspection mirror and flashlight, inspect the front side of the nose landing gear steering damper for indications of contact with the nose landing gear guide plates.

1) If no indication of contact is found, no further action is required.

2) If indication of contact is found, remove the steering damper for rework (refer to the E1000 AMM PN SK05000000, chapter 32-20).

D) Return the removed steering damper to Epic Aircraft for rework. Reference the aircraft serial number on the packaging:

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E) Install the reworked steering damper (refer to the E1000 AMM PN SK05000000, chapter 32-20).

F) Remove the cowling (refer to the E1000 AMM PN SK05000000, chapter 71-10).

G) Raise the airplane using aircraft jacks. Ensure there is sufficient clearance from the ground to retract and extend the landing gear (refer to the Epic E1000 Airframe Maintenance Manual, PN SK05000000, Chapter 7-10).

H) Connect a ground power unit to the airplane (refer to the Epic E1000 Airframe Maintenance Manual, PN SK05000000, Chapter 24-40).

I) Set the BATT 1 and BATT 2 switches to ON.

J) Put the landing gear handle in the UP position to move the nose landing gear from the down and locked position.

NOTE: If the main landing gear partially retract, manually move them back to the down and locked position.

K) If there is not enough pressure remaining in the hydraulic system to move the nose landing gear from the down and locked position, do the steps that follow:

1) Connect the hydraulic service cart to the airplane.

2) Turn on the hydraulic service cart.

3) Put the landing gear handle in the UP position and use the hydraulic service cart to position the landing gear between the extended and retracted positions.

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4) Turn off the hydraulic service cart.

5) Disconnect the hydraulic service cart from the airplane.

L) Manually move the nose landing gear through its travel and measure the distance between the steering damper and the guide plates (refer to Figure 1).

NOTE: The landing gear handle must be in the UP position to manually retract the NLG and in the DN position to manually extend the NLG.

1) If the clearance at all positions is 0.188” or greater, no further action is necessary.

2) If the clearance is less than 0.188” at any point in the travel, do the steps that follow:

CAUTION: Do not remove more material than is necessary to achieve the proper gap. At least 0.1875” of the roller must remain in contact with the guide plates throughout the full travel of the nose landing gear. If the minimum gap and correct roller contact can’t be achieved, contact Epic Aircraft for disposition.

a) Remove material from the left and right guide plates as needed to achieve the 0.188” clearance. Do not remove more than 0.250” from the aft edge of the guide plate. Guide plate dimension must be at least 1.000” (refer to Figure 2).

b) Prime with Type I, Class C1 or C2 epoxy primer conforming to MIL-PRF-23377.

c) Paint the repaired area (refer to the Epic E1000 Airframe Maintenance Manual, PN SK05000000, Chapter 51-20).

M) Manually move the landing gear to the down and locked position.

CAUTION: Make sure all landing gear have a green down and locked indication in the cockpit before lowering the aircraft.

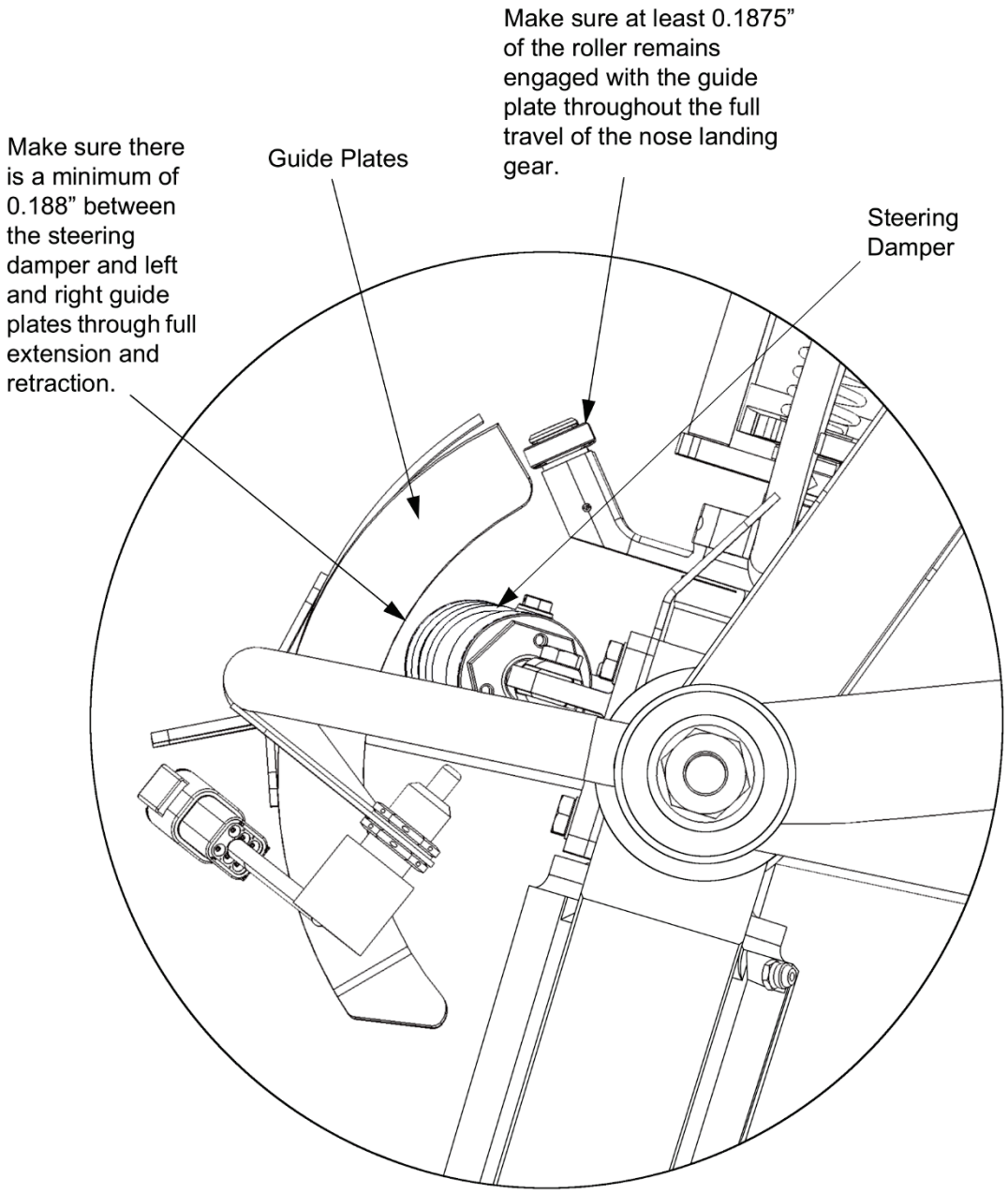
N) Lower the airplane and remove the aircraft jacks (refer to the E1000 AMM PN SK05000000, chapter 7-10).

O) Set the BATT 1 and BATT 2 switches to OFF.

P) Remove all external electrical power to the airplane (refer to the E1000 AMM PN SK05000000, chapter 24-40).

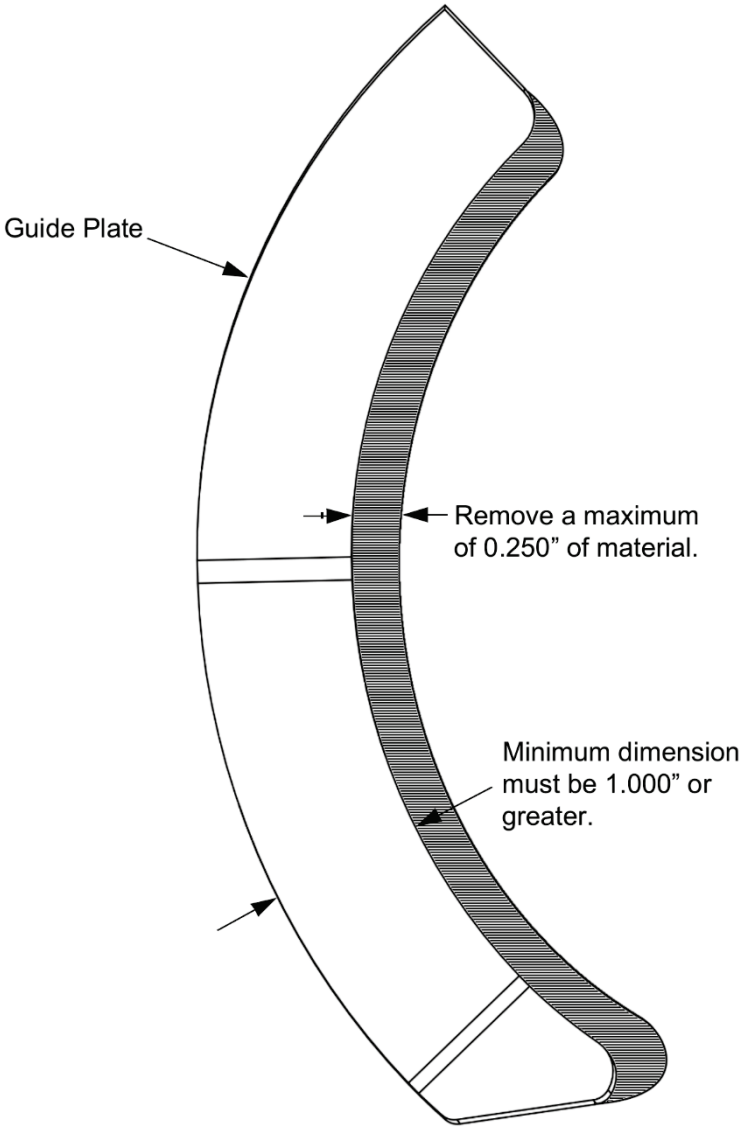
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Figure 1: Steering Damper Interference



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Figure 2: Steering Damper Interference



Left Side Shown, Right Side Opposite

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7 WEIGHT AND BALANCE:

Negligible

8 PUBLICATIONS AFFECTED:

N/A

9 RECORD COMPLIANCE:

Make appropriate entry in airplane maintenance records.

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Appendix A: Compliance Letter

Please complete and mail this form to Customersupport@epicaircraft.com

This is to certify that I have completed the work in accordance with the Epic Aircraft, LLC Service Bulletin.

Aircraft Owner Information:
Date: _____ Aircraft Serial Number: _____ Aircraft Reg. Number: _____ Owner's Name: _____
Maintenance Entity Information
Name of Shop Performing the work: _____ Name of Person(s) Performing inspection and/or work: _____ Phone Number: _____ Email: _____