



Piper Aircraft, Inc.
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SERVICE *NO. 1095A* LETTER

Date: September 24, 2020

(S) (M)

Service Letter (SL) 1095A supersedes SL 1095 in its entirety. Aircraft that were previously made compliant with SL 1095 are in compliance with SL 1095A.

SUBJECT:

CLASSIFICATION AND DISPOSITION OF DENTS CAUSED BY HAIL DAMAGE

REASON FOR REVISION:

SL 1095A improves clarity, updates dent classification and disposition, and adds multiple models. Other changes update the document to the current Piper format.

MODELS AFFECTED:

- PA-28-140/150/160 Cherokee
- PA-28-180 Cherokee
- PA-28-235 Cherokee Pathfinder
- PA-28-236 Dakota
- PA-28-151 Warrior
- PA-28-161 Cadet
- PA-28-161 Warrior II/III
- PA-28-180 Archer
- PA-28-181 Archer II/III
- PA-28-201T Turbo Dakota
- PA-28R-180 Arrow
- PA-28R-200 Arrow/II
- PA-28R-201 Arrow/III
- PA-28R-201T Turbo Arrow III
- PA-28RT-201 Arrow IV
- PA-28RT-201T Turbo Arrow IV
- PA-32-260/-300 Cherokee Six
- PA-32R-300 Lance
- PA-32RT-300/-300T Lance II/Turbo Lance II
- PA-32R-301 Saratoga SP/II HP
- PA-32R-301T Turbo Saratoga SP
- PA-32-301 Saratoga
- PA-32-301T Turbo Saratoga
- PA-32R-301T Saratoga II TC
- PA-32-301FT Piper 6X
- PA-32-301XTC Piper 6XT

SERIAL NUMBERS AFFECTED:

- All
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ATA/JASC: 5100

(OVER)

PA-34-200 Seneca	All
PA-34-200T Seneca II	All
PA-34-220T Seneca III	All
PA-34-220T Seneca IV	All
PA-34-220T Seneca V	All
PA-44-180 Seminole	All
PA-44-180T Turbo Seminole	All

COMPLIANCE TIME: On condition; then, a repetitive inspection every 250 hours, or annually, whichever comes first

APPROVAL: The engineering aspects of this service document have been shown to comply with the applicable Federal Aviation Regulations and are FAA approved.

PURPOSE: This service letter provides guidelines for classifying dents to the aircraft surfaces as a result of hail, and establishes corrective action based on the severity of the damage.

NOTE: Piper Aircraft makes no representation as to the aesthetic quality resulting from compliance with this service letter.

INSTRUCTIONS:

WARNING: ANY CRACKS DISCOVERED IN THE AIRCRAFT STRUCTURE MUST BE REPAIRED PRIOR TO THE NEXT FLIGHT. AN AIRPLANE WITH CRACKS IN ITS STRUCTURE DOES NOT MEET ITS TYPE DESIGN AND NO LONGER POSSESSES ITS REQUIRED TYPE DESIGN STRENGTH.

1. Inspection of Dents

- a. Determine the locations where dents are present.
 - Metal skin of the fuselage, wings or empennage
 - Control surfaces
 - Composite component
- b. Measure the maximum depth and circumscribable diameter of the dents from the aircraft exterior. For depth measurements on curved surfaces, measure the maximum depth of the dent from the general contour. The dent diameter is measured to the point where the skin material rejoins the general contour. See Figure 1.
- c. Measure the distance from the circumscribable diameter (defined in Step b) to the nearest fastener. Note the diameter of the fastener.
- d. Visually inspect the dent area for cracks, abrasions, creases, or abrupt changes in contour within an area encompassing two times the circumscribable diameter. Use a 10X magnifier or an equivalent inspection method.
- e. Visually inspect adjacent interior structural components for deformation.

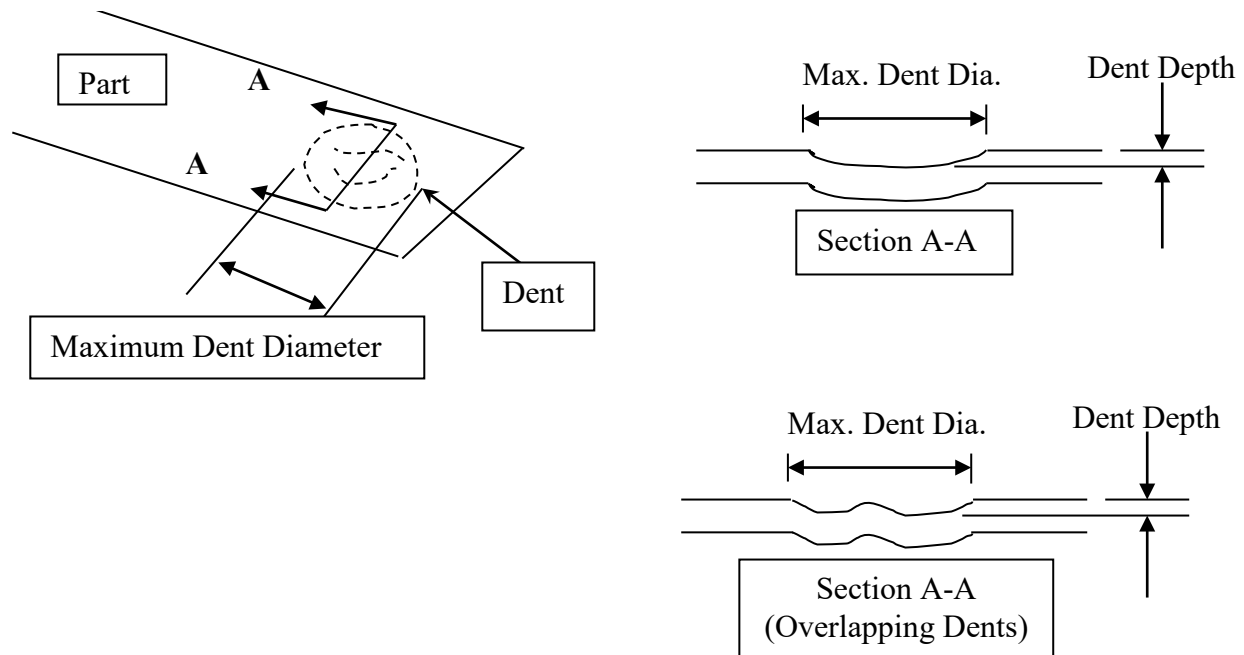


Figure 1
Dent Profile Definitions

2. Classification of Dents

NOTE: Dents classified as minor or major require an additional inspection of the inner surface of the dent, using criteria defined in Step 1.d.

a. Negligible – Must meet all of the following dent limitations:

- 1) Dents only in the metal skin of the fuselage, wings and empennage (not applicable to control surfaces and substructure such as spars, frames and stringers).
- 2) Refer to Table 1 to assess the allowable depth of dents for the nominal thickness of the dented material. Dents must have a circumscribable diameter no greater than two (2.0) inches.

NOTE: Refer to “Skin Materials and Thickness” figures, in Chapter 51 of the applicable Piper Airplane Maintenance Manual (AMM), or Section IV of the applicable Service Manual or AMM, for the thickness of the structure where a given dent is located.

- 3) Dents are a minimum distance of two times (2X) the nearest fastener’s diameter from that fastener, when measured from a dent’s circumscribable diameter to the nearest fastener.
 - 4) There are no cracks, abrasions or creases within an area encompassing 2X the dent’s circumscribable diameter.
 - 5) There are no deformations of the interior structure adjacent to the dents.
- b. Minor – Must meet all of the dent limitations provided under Negligible, except for item 3; the dents may be less than 2X the nearest fastener’s diameter from that fastener.
- c. Major – Exceed any or all of dent limitations 2, 4 and/or 5, provided under Negligible.
- d. Composite Components
- e. Control Surfaces – Do not meet negligible dent limitation 1.

**TABLE 1
ALLOWABLE DEPTH OF DENTS**

NOMINAL THICKNESS OF MATERIAL	MAXIMUM DEPTH OF DENTS
0.012	0.0072
0.016	0.0096
0.020	0.012
0.025	0.015
0.032	0.019
0.040	0.024
0.051	0.030
0.063	0.038

NOTE: The allowable maximum depth of dents for material thicknesses not shown in this table may be determined as follows: Maximum depth is approximately the material thickness divided by 1.666, rounded down to the nearest thousandth (1/1000).

3. Disposition of Dents

NOTE: For repair guidance (where applicable), see Federal Aviation Administration Advisory Circular AC 43.13-1B. This free document is available for download from the FAA, at https://www.faa.gov/regulations_policies/advisory_circulars/.

- a. Negligible – Acceptable as is. Cosmetic repair is not required.
- b. Minor – The affected parts must be replaced, or they may be repaired as follows:
 For each fastener that is within a distance of 2X the applicable fastener’s diameter from the edge of any dent, install one matching (same size and type) fastener adjacent to the applicable fastener.
 New fasteners shall be installed in accordance with the following limitations:
 - a minimum of 2X the fastener diameter from the edge of the dent
 - a minimum of 3X the fastener diameter from existing fasteners
 - a minimum of 2X the fastener diameter from any component’s edge
- c. Major – The affected parts must be replaced, or they may be repaired using FAA-approved procedures.
- d. Composite Components – Evaluate and disposition per FAA AC 43.13-1B, Chapter 3, “Fiberglass and Plastics,” prior to returning to service.
- e. Control Surfaces
 - Replace a control surface if dents exceed any of the negligible dent limitations 2, 4 and/or 5.
 - Replace a control surface if dents disturb its trailing edge contour or any formed radius.

NOTE: Movable control surfaces must remain free of body filler or any other modification that could affect weight and balance.

4. Continued Inspection Requirements

Regardless of classification and disposition, visually inspect all dents for cracks every 250 hours, or annually, whichever comes first. Paint cracking around the area of the dent may indicate cracking of the skin and requires further inspection.

However, dents previously classified as minor that have not been repaired require a recurring inspection at an interval not to exceed 50 hours time in service, until a suitable repair is accomplished.

MATERIAL REQUIRED: On condition, case-by-case requirements

AVAILABILITY OF PARTS: Your Piper Approved Service Center

EFFECTIVITY DATE: This service letter is effective upon receipt.

SUMMARY: Please contact your Piper Approved Service Center to make arrangements for compliance with this service letter in accordance with the compliance time indicated.

NOTE: Please notify the factory of any address/ownership corrections. Changes should include aircraft model, serial number, and current owner's name and address.

Corrections and/or changes should be directed to:

PIPER AIRCRAFT, INC.
Att'n: Customer Service
2926 Piper Drive
Vero Beach, FL 32960

or:

CustomerService@piper.com

Please include in subject line: "Aircraft ownership update"