
Structural Repair Manual

STRUCTURAL INSPECTION AND REPAIR MANUAL

SUPER KING AIR® 350 (B300 SERIES)

SUPER KING AIR® 300

SUPER KING AIR® 200 SERIES

KING AIR® 100 SERIES

99 AIRLINER SERIES

KING AIR® 90 SERIES

KING AIR® F90 SERIES

QUEEN AIR® 88

QUEEN AIR® 65, 70, 80 SERIES

TWIN BONANZA® 50 SERIES

FAA APPROVAL HAS BEEN OBTAINED ON TECHNICAL DATA IN THIS PUBLICATION THAT AFFECTS AIRPLANE TYPE DESIGN.

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REVISION D6

9 AUGUST 2024

REVISION SUMMARY/HIGHLIGHTS
P/N 98-39006 Revision D6

1. General

A. In this revision, the Structural Inspection and Repair Manual chapters which have been revised or added are listed below with the highlights of each change. For paper copies of this manual, remove the affected pages and insert this revision in accordance with the instruction page. Enter the revision number and the date inserted on the Record of Revisions page of this manual. The Highlights Page may be retained with the manual for future reference.

2. Definition

A. Columns

- (1) CHAPTER/SECTION - This column gives the manual location for each document in the revision.
- (2) TITLE - This column gives the name of the document as it is given at the top of the actual document and in the Table of Contents.
- (3) DESCRIPTION - This column gives a short description of the changes that have been made to that section in this revision.

3. Revision Information

A. The changes that follow were made to the Structural Inspection and Repair Manual - Maintenance Manual:

CHAPTER SECTION SUBJECT	DOCUMENT TITLE	ACTION
Introduction	PUBLICATION TITLE PAGE	
Introduction	LIST OF EFFECTIVE PAGES	
Introduction	TABLE OF CONTENTS	
Introduction	LIST OF REVISIONS	<ul style="list-style-type: none"> • Added Revision 6 and updated the revision date.
Chapter 53	LIST OF EFFECTIVE PAGES	
Chapter 53	TABLE OF CONTENTS	
53-00-12	CRACKS IN FUSELAGE KEEL SKIN AFT OF WING MAIN SPAR AT END OF SPAR CUT OUT (KING AIR MODELS 65, 80, 90, A90, B90, C90, C90A, E90, F90, 100, A100, B100)	<ul style="list-style-type: none"> • Changed illustration figure reference numbers in Paragraphs 2.c., g. and j.
Chapter 57	LIST OF EFFECTIVE PAGES	
Chapter 57	TABLE OF CONTENTS	
57-18-02	CRACK INSPECTION - WING ATTACH FITTINGS AND OUTBOARD WING SPAR CAPS (MODEL B300/B300C)	<ul style="list-style-type: none"> • Added inspection interval column for 16,500 MTOW airplanes to Table 201. • Added note to Step 1.J.(11) for washer quantity and usage. • Removed note from Step 1.J.(6)(a).

LIST OF REVISIONS

1. Revisions

- A. This manual includes the original issue and the revisions listed in [Table 1](#). To make sure that the information in this manual is current and the latest maintenance and procedures are available, the revisions must be incorporated in the manual as they are issued.

Table 1. 98-39006 - Maintenance Manual Revision Dates

Revision Number	Date	Revision Number	Date
Original Issue	1 Dec 1982	B	25 Feb 1995
C	10 Mar 2003	D0	1 Nov 2018
D1	1 Jun 2019	D2	1 Jan 2020
D3	15 Feb 2022	D4	1 Apr 2023
D5	15 Sep 2023	D6	9 Aug 2024

NOTE: Basic publications are assigned a part number which appears on the title page with the date of the issue. Subsequent revisions are identified by the addition of a revision code after the part number. A1 after a part number denotes the first revision to the basic publication, A2 the second, etc. Occasionally, it is necessary to completely reissue and reprint a publication for the purpose of obsoleting a previous issue and outstanding revisions thereto. As these replacement reissues are made, the code will also change to the next successive letter of the alphabet at each reissue. For example, B for the first reissue, C for the second, etc. Revisions listed above include only the original issue, reissues, and the revisions issued subsequent to the last reissue of the manual.

2. Export Compliance

- A. The export of these commodities, technology or software are subject to the US Export Administration Regulations. This information has been exported from the United States in accordance with export administration regulations. Diversion contrary to US law is prohibited. For guidance on export control requirements, contact the Commerce Department's Bureau of Export Administration at 202-482-4811 or visit the US department of Commerce website.
ECCN: 9E991

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INTRODUCTION

1. General

- A. The Instructions for Continued Airworthiness (ICA) in this publication use the data available at the time of publication. This publication is updated, supplemented, and changed by service letters, service bulletins, publication revisions, reissues, ICA supplements, and temporary revisions, which are supplied by subscription services available from Textron Aviation Customer Service. All of these changes become part of and are specifically included in this publication which is the principal manual for ICA. The latest changes to this publication are available through the Textron Aviation Customer Service subscription services, Service Centers and Service Stations.
- B. The date on the Original Standard Airworthiness Certificate, issued with each airplane, must be considered as the starting time for all Inspection and Replacement Schedules presented in this manual.
- C. The ICAs in this manual have been written for Textron Aviation Inc.-approved parts. If non-approved parts are installed, refer to the manufacturer's or seller's publications for inspection intervals, replacement time limits, methods of inspections, life limits, etc.
- D. Textron Aviation Inc. expressly reserves the right to supersede, cancel or declare obsolete any parts, part numbers, kits or publications that may be referenced in this manual without prior notice.

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WARNING: Any maintenance requiring the disconnect and reconnect of flight control cables, plumbing, electrical connectors or wiring requires identification of each side of the component being disconnected to facilitate correct reassembly. At or prior to disassembly, components should be color coded, tagged or properly identified in a way that it will be obvious how to correctly reconnect the components. After recondition of any component, remove all identification tags. Check all associated systems for correct function prior to returning the airplane to service.

E. Qualifications

All personnel performing Non-destructive Testing Inspections (NDT) in this manual must be qualified and Certified Level II or Level III in accordance with NAS 410, ASNT/SNT-TC-1A, or an equivalent NDT certification program in the method in which they are performing. All inspections must be documented and approved by Textron Aviation or a person who has completed the SIRM training course offered by a Textron Aviation authorized training facility, no alternate courses are approved. The SIRM course information can be obtained by contacting structures@txtav.com or 316-517-6061. The implementation of these test procedures by unauthorized personnel will not be considered valid.

NOTE: A Certified Level II or Level III technician in accordance with NAS 410, ASNT SNT-TC-1A, or an equivalent NDT certification program may perform the NDT requirements as directed in this manual having not attended the Textron Aviation Training, if the technician is directed by a person who has completed training.

2. How to Get Customer Assistance

- A. If you need assistance with publications orders, service center referrals, sales and marketing support, troubleshooting, structural repairs, pilot services, or general information, visit our website at txtavsupport.com or contact one of the following:

Textron Aviation Customer Service

Phone Numbers	+1 844-448-9828
	+1 316-517-8270
Mailing Address	One Citation Lane Wichita, KS 67209
Email Address	Refer to the tables below for desired Customer Service disciplines

Technical Manual Distribution Center (TMDC)	
Phone Numbers	+1 800-796-2665
	+1 316-517-6215
Email Address	Email: tmdc@txtav.com

Team Structures	
Phone Numbers	+1 316-517-6061
	APAC: +65 6690-9777
Email Address	Email: Structures@txtav.com
	Email: StructuresEMEA@txtav.com
	Email: StructuresAPAC@txtav.com
	Email: FleetRepairs@txtav.com

Maintenance Engineering	
Phone Numbers	+ 316-517-9370
Email Address	Email: maintenanceengineering@txtav.com

Non-Destructive Testing Certification & Support	
Phone Numbers	+ 316-249-0955
Email Address	Email: ncertprogram@txtav.com

3. Coverage

- A. This manual provides details on the inspection, repair, and/or replacement of specific structural members on the Twin Bonanza, Queen Air, King Air, and Model 99 Airliner. The information within a chapter that may be acceptable to only one model is arranged in a subchapter and separated with a green tab.
It shall be the responsibility of the owner/operator to ensure that the latest revision of the publications referenced in this manual are utilized during operation, servicing and maintenance of the airplane.
- B. The Structural Inspection and Repair Manual is prepared in accordance with the requirements of ATA (Air Transport Association of America) Specification 2200 with respect to the arrangement and content of the System/Chapters within the designated numbering system.
- C. If a particular airplane model has been equipped with more than one spar type, the subchapter will be further divided into sub-sub sections which will detail the peculiar inspection requirements for each spar type. The sub-sub sections will be separated by white divider tabs which note the model and section.
- D. In addition to this manual and its subsequent revisions, additional maintenance information is published in the form of Textron Aviation Inc. service bulletins. The information contained in these service bulletins is an integral part of, and is to be used in conjunction with, the information contained in this manual.
- E. Correspondence
If a question should arise concerning the care of your airplane, it is important to include the airplane serial number in any correspondence. The serial number appears on the model designation placard. Refer to Chapter 11 of the applicable maintenance manual for placard location.
- F. Publications Change Request (PCR)
If an irregularity or missing information is noted, the user of this manual may access a PCR form at <http://pubs.txtav.com>.

Instructions on how to submit a PCR are included on the web page.

G. Normal Revisions

Normal Revisions to this manual are issued to provide changes to airworthiness limitation information.

- (1) **Paper Revision** - That portion of text which has been revised by the addition of, or a change in, information is denoted by a solid revision bar adjacent to the text. The date printed on the bottom of each page can be compared to the "A" page to determine the revision number. Each revised page will ONLY show revision bars for text changed by the revision. There will not be a revision bar if text was deleted from the page. Revised illustrations will be identified by a revision bar printed on the side of the page.
- (2) **CD-ROM Revision** - Normal revised text on the CD-ROM will be highlighted yellow across the revised passage of text. For each revision of this manual, a new CD-ROM will be issued. The CD-ROM may contain revised illustrations. Revisions to the illustrations are not identified.

H. Temporary Revisions

Temporary Revisions to this manual are issued to provide airworthiness information in the interim between normal revisions. Each temporary revision is issued by the chapter number to which it applies, followed by a sequential number in the order of publication (Temporary Revisions 12-1, 12-2, etc.). If relevant, the information in the temporary revision should be included in the next normal revision of the manual.

- (1) **Paper Temporary Revision** - Temporary Revisions are printed on yellow paper and are to be inserted in the maintenance manual in accordance with the instructions provided and adjacent to applicable chapter, section, and subject matter in the manual.
- (2) **CD-ROM Temporary Revision** - A new CD-ROM will be issued for each Temporary Revision to this manual. This information is listed in conjunction with the applicable chapter, section, subject on the CD-ROM.

I. Revised Text

That portion of text which has been revised by the addition of, or a change in, punctuation and/or information is denoted by a solid revision bar adjacent to the textual column in the margin of this paragraph. Each page may or may not have revision bars. That date printed on the bottom of each page indicates when the information on that page was changed. Each page will ONLY show revision bars for punctuation and/or text changed by the current revision. Revised text in 1View will be denoted by teal highlighting.

J. Revised Illustrations

When an illustration is modified or a new illustration is added, it will be noted by a solid line (revision bar) along the outside margin of the illustration.

K. Warnings, Cautions, and Notes

- **WARNING** - Brings attention to an operating procedure, inspection or maintenance practice, which if not correctly followed, could result in personal injury or loss of life.
- **CAUTION** - Brings attention to an operating procedure, inspection, repair or maintenance condition, which if not strictly observed, could result in damage or destruction of equipment.
- **NOTE** - Brings attention to an operating procedure, inspection, repair or maintenance condition, which is essential to highlight.

L. Special Conditions Cautionary Notice

Airplanes operated for Air Taxi, or other than normal operation, and airplanes operated in humid tropics, cold and damp climates, etc., may need more frequent inspections for wear, corrosion and/or lack of lubrication. Under these adverse conditions, perform periodic inspections in compliance with this guide at more frequent intervals until the owner or operator can set his own inspection periods based on the contingencies of field experience.

CAUTION: The recommended periods do not constitute a guarantee the item will reach the period without malfunction as the aforementioned factors cannot be controlled by the manufacturer.

4. Manual Layout

A. Title Page

A Title page is located at the beginning of the manual and provides the part number of the manual, and lists all aircraft models pertaining to this manual and their respective serial numbers. Information throughout this manual is applicable to all serial numbers listed on the title page except where specifically stated.

B. List of Effective Revisions/List of Effective Pages

The printed manual will have a List of Effective Revisions/List of Effective Pages, ("A" page) following the title page of the

manual. The List of Effective Revisions page lists the revisions currently effective for the manual. The List of Effective Pages section lists the page effectivity for the Title Page(s), "A" page(s) and Introduction chapter. It will also show the effective pages for an entire manual if the manual does not have individual Chapter List of Effective Pages.

- C. Record of Revisions Page
The printed manual will have a Record of Revisions page. The Record of Revisions is provided following the List of Effective Revisions/List of Effective Pages ("A" page). When a revision is inserted, the revision number, the date the revision is inserted into the manual, and the initials of the person(s) inserting the revision should be recorded on this page.
- D. Log of Temporary Revisions Page
The printed manual will have a Log of Temporary Revisions page. The Log of Temporary Revisions Page is located following the Record of Revisions page. The Log of Temporary Revisions page provides a history of each temporary revision, including the revision number which incorporated the temporary revision into the manual.
- E. Record of Temporary Revisions Page
The printed manual will have a Record of Temporary Revisions page. The Record of Temporary Revisions Page is located following the Log of Temporary Revisions page. When a temporary revision is inserted or removed from this manual, the appropriate information should be recorded on this page.
- F. Introduction
This section contains general and specific information on how to use this manual.
- G. Chapter List of Effective Page
The printed manual may have a Chapter List of Effective Pages. The List of Effective Pages follow the Chapter-Divider-Tab and lists the issue date of each page that is effective for that chapter.
- H. Chapter Table of Contents Pages
The printed manual may have a Chapter Table of Contents Pages. The Chapter Table of Contents Pages follow the Chapter List of Effective Pages and lists the contents of the data for that chapter.

5. How to Use the Manual

- A. ATA Subject Matter Assignment
The contents of this manual are organized into three levels. The three levels are:
 - (1) **Level 1 - System/Chapter** - The various groups are broken down into major systems such as Air conditioning, Electrical Power, Landing Gear, etc. The systems are arranged more or less alphabetically rather than by precedence or importance. They are assigned a number, which becomes the first element of the standardized numbering system. Thus the element "24" of the number 24-30-01 refers to the chapter "ELECTRICAL POWER". Everything concerning the electrical power system will be covered in this chapter.
 - (2) **Level 2 - Subsystem/Section** - The major systems/chapters of an airplane are broken down into subsystems/sections. These subsystems are identified by the second element of the standard numbering system. The element "30" of the number 24-30-01 concerns itself with the DC Generation system.
 - (3) **Level 3 - Unit/Subject** - The individual units within a subsystem/section may be identified by the third element of the standard numbering system. The element "01" of the number 24-30-01 is a subject designator. This element is assigned at the option of the manufacturer and may or may not be used. In this example, the subject is the "Starter-Generator".
- B. Application
Any publication conforming to the ATA format will use the same basic numbering system. Thus, whether the manual is a Maintenance Manual or a Wiring Diagram Manual, the person wishing information concerning the electrical system, would refer to the System/Chapter Tab "24 - ELECTRICAL POWER". The table of contents in the front of this chapter will provide a list of subsystems covered in this chapter. For example, the electrical system chapter would contain:
 - 24-00 - General
 - 24-20 - AC Generation (portion of system used to generate, regulate, etc., AC electrical power)
 - 24-30 - DC Generation (portion of system used to generate, regulate, etc., DC electrical power)
 - 24-40 - External Power (portion of system used to connect external electrical power)
 - 24-60 - DC Electrical Load Distribution (portion of system used to supply DC electrical power to systems)

The material is arranged within the chapter in ascending numerical sequence. The Chapter-Section-Subject number and page number are found at the lower outside corner of each page.