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MAINTENANCE MANUAL SUPPLEMENT

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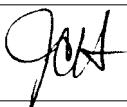
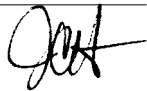
CESSNA CITATION MODEL 550 INCREASED RAMP AND TAKEOFF WEIGHT INSTALLATION

26 SEPTEMBER 1990

This supplement must be attached to the Cessna Citation Model 550 Maintenance Manual when the New Flight Corporation (P.N. 90C891-001 or -002) is installed in accordance with FAA STC NO. SA4954NM. The information contained herein supplements the basic maintenance manual in the areas listed.

Prepared by J. Haworth

Approved by J.C.H.

| REV | DATE | DESCRIPTION | PREP BY | APPVD BY |
|-----|---------|---|---|---|
| A | 7Jan91 | Add note to page 2, par. 4 of Section 5-11-00 | JH | JH |
| B | 22Apr91 | Revise Landing Gear Life Limits to agree with AFM Supplement, Section 1 | JH | JH |
| C | 1Jul94 | Revised name on title page: New Flight Corporation was Branson Aircraft Corporation | JH | JH |
| D | 28Jul95 | Added FAA approved Section 4, Deleted Section 5 |  |  |
| | | | | |

INTRODUCTION

This manual is applicable to the Cessna Citation Model 550 when it has the New Flight Corporation Increased Ramp and Takeoff Weight modifications (P.N. 90C891-001 or -002) installed.

This manual is a supplement to the Cessna Citation Model 550 Maintenance Manual and the Illustrated Parts Manual. It pertains only to the areas affected by the ramp and takeoff weight increase. Maintenance information contained herein supplements the basic manual in the areas listed.

The supplement is arranged using the same chapter/system element numbers contained in the basic manual. For example:

52-40-00. Service Door

will be found in Chapter 52, Doors, Section 40 Service Doors. The material contained in this supplement and keyed 52-40-00 should be added to that chapter and section of the basic Maintenance Manual.

The following chapters in the basic Maintenance Manual are affected by this supplement:

Chapter 4 Airworthiness Limitations

Chapter 12 Servicing

Chapter 32 Landing Gear

FAA approval is limited to Chapter 4 only.

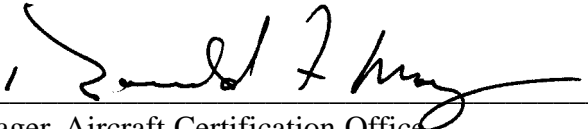
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AIRWORTHINESS LIMITATIONS

NOTE:

This Airworthiness Limitations section is FAA approved and specifies maintenance required under 43.16 and 91.163 of the Federal Aviation Regulations unless an alternate program has been FAA approved.

Approved by 
Manager, Aircraft Certification Office
Federal Aviation Administration
Denver, Colorado

Date of Approval  28 1995

A. MAINTENANCE INSPECTION SCHEDULE

No change from standard approved inspection intervals as established in Cessna Citation Maintenance Manual Chapter 4, Section 10, "Inspection Time Limits."

B. REPLACEMENT TIME LIMITS

The replacement times presented in this section specify the currently approved intervals at which the listed aircraft components must be replaced.

LANDING GEAR LIFE LIMITS

(Airplanes -0002 thru -0626, except -0491 and -0492)

| Part Number | Description | Replacement |
|----------------------------|--|--------------------|
| NOSE GEAR | | |
| 5542000-9 & Misc. Parts | Nose Landing Gear Assembly and Attaching Hardware | 15,000 |
| 5511169-1 | Actuator Fitting | 9,700 |
| 5542300-1 | Fork | 8,600 |
| 6511105-1 | Actuator Fitting | 15,900 |
| 5542105-2,-3 | Piston Weld Assembly | 8,800 |
| 9912063-11 | Actuator | 20,800 |
| 9912063-13 | Actuator | 15,000 |
| 9912120-1 | Actuator | 15,900 |

| Part Number | Description | Replacement |
|---|--|--------------------|
| MAIN GEAR | | |
| 6541000-3,-11,-27 -33,-37 & Misc. Parts | Left Main Landing Gear Assembly and Attaching Hardware | 18,800 |
| 6541000-4,-12,-28, -34,-38 & Misc. Parts | Right Main Landing Gear Assembly and Attaching Hardware | 18,800 |
| 5522700-1,-5 | Trunnion Fitting Assembly, FWD LH | 12,300 |
| 5522700-2,-6 | Trunnion Fitting Assembly, FWD RH | 12,300 |
| 5522710-1,-7,-11 | Trunnion Fitting Assembly, AFT LH | 12,300 |
| 5522710-2,-8,-12 | Trunnion Fitting Assembly, AFT RH | 12,300 |
| 5522720-1,-7,-15, -17,-21,-25 | Left Sidebrace Support Fitting | 12,300 |
| 5522720-2,-8,-14 -16,-22,-26 | Right Sidebrace Support Fitting | 12,300 |
| 5541109-1,-2 | Outer Cylinder | 10,800 |
| 5541304-6 | Torque Link Assembly, Lower | 26,800 |
| 9912053-13 | Actuator Assembly, LH | 24,300 |
| 9912053-17,-19 | Actuator Assembly, LH | 18,800 |
| 9912053-14 | Actuator Assembly, RH | 24,300 |
| 9912053-18,-20 | Actuator Assembly, RH | 18,800 |

C. EQUIVALENT LIFE FOR AIRCRAFT WITH PRE-MOD LANDINGS

For airplanes which have takeoffs and landings prior to the modifications, the life landing gear must be adjusted to equivalent heavy weight operations. The following pages show a life reduction to be used for an aircraft for every 1000 pre-mod landings.

Calculation of replacement time limits for aircraft with pre-mod landings is a two step process. First, the number of takeoffs/landings at the lighter weights must be converted to equivalent heavy weight operations. Then this number must be subtracted from the heavy weight life limits listed in the previous section to determine the replacement life limit for the component.

Two worksheets are provided at the end of this section to help make these calculations.

EXAMPLE:

An aircraft has 3500 pre-mod takeoff/landing operations before the modification was installed to increase the takeoff and ramp weight. The main gear actuator assembly, part number 9912053-13 or -14, had a replacement life limit of 37,500 operations originally. After modification, the actuator assembly life limit is 24,300 operations. The equivalent life per 1000 operations is 650.

First, it is necessary to calculate the equivalent life:

$$\text{Equivalent life} = 3500 \times \frac{650}{1000} = 2275$$

Number of pre-mod operations since new or replacement

Equivalent Life/1000 operations, from section 4-12-00

Always 1000

Next, calculate the new replacement life by subtracting the equivalent life from the maximum replacement, and adding this to the pre-mod operation:

$$24,300 - 2,275 + 3,500 = 25,525$$

Next replacement due (always higher than life limit)

Life Limit from Section 4-11-00

Equivalent Landings

Pre-mod Landings Recorded

Note: Full Stop Landings after modification are always counted one for one.

LANDING GEAR EQUIVALENT LIFE

| Part Number | Description | Equivalent Life/1000 |
|---|---------------------------|-----------------------------|
| 5542000-9 | Nose Gear Assy | 670 |
| 5511169-1 | Actuator Fitting | 700 |
| 9912063-11 | Actuator | 640 |
| 9912063-13 | Actuator | 670 |
| 9912120-1 | Actuator | 665 |
| 5542300-1 | Fork | 690 |
| 5542105-2,-3 | Piston Weld Assy | 710 |
| 6541000-3,-11,-27,-33,-37 | Main Gear Assy LH | 660 |
| 6541000-4,-12,-28,-34,-38 | Main Gear Assy RH | 660 |
| 5522700-1,-5,-2,-6 | Trunnion Assy | 670 |
| 5522710-1,-7,-11,-2,-8,-12 | Trunnion Assy | 670 |
| 5522720-1,-7,-15,-17,-21 -25,-2,-8,-14,-16,-22,-26 | Sidebrake Support Fitting | 670 |
| 9912053-17,-19,-18,-20 | Actuator Assy | 660 |
| 9912053-13,-14 | Actuator Assy | 650 |
| 5541109-1,-2 | Outer Cylinder | 675 |
| 5541304-6 | Torque Link Assy | 645 |

D. REMOVING THIS MODIFICATION

Should it ever be necessary to remove this modification, the life limits of the landing gear components must be re-calculated to reflect the takeoffs and landings logged while the modification was installed. Contact New Flight Corporation for information.

CHAPTER 12

TIRES - SERVICING

1. General

The tires used on the airplane are as follows:

Main Wheel Tire: 22.0 × 8.00 -10 (12 ply tubeless)

2. Tire Inflation

Main gear tire pressure is 135 ±5 psi at 70°F ambient temperature with no loading.

BRAKES - WEAR LIMITS

1. General

The brakes used on the airplane are as follows:

Main Gear Brakes: Parker Hannifin 030-18902 Brake Assy

2. Wear Limits

The Parker Hannifin 030-18902 Brake Assy utilizes the retract stud in each of the three retract mechanisms as a lining wear indicator. See Parker Hannifin “Overhaul Manual with Illustrated Parts list for Brake Assembly 030-18902” for inspection procedures and wear limits.

CHAPTER 32

WHEELS AND BRAKES - DESCRIPTION AND OPERATION

Description

Main Gear Tire

The airplane utilizes a size 22 × 8.0 tubeless 12-ply rated ribbed tread tire.

Main Gear Wheel

For a complete description of the main gear wheel assembly, see Parker Hannifin Corporation Overhaul Manual with Illustrated Parts List for Wheel Assembly 040-23901.

Main Gear Wheel Brakes

For a complete description of the Main Gear Brake Assembly, see Parker Hannifin Corporation overhaul Manual with Illustrated Parts List for Brake Assembly 030-18902.

PARTS LIST

| PART NO. | DESCRIPTION | VENDOR | |
|---|--|---|---|
| 220K28-1 | Main Gear Tire | GOODYEAR AEROSPACE CORP. 1210 Massillon Rd. Akron, Ohio 44315 | |
| 028-700-0 | Main Gear Tire | MICHELIN AIRCRAFT TIRE CORP. 150 Springside Drive Akron, Ohio 44313 | |
| 030-18902 | Brake Assy | PARKER HANNIFIN CORP. 1160 Center Road Avon, Ohio 44011 | |
| 040-23901 | Wheel Assy | PARKER HANNIFIN CORP. 1160 Center Road Avon, Ohio 44011 | |
| 90C899-013 | Placard, Tire Pressure <table border="1"><tr><td>INFLATE TIRE 135 ± 5 PSI</td></tr></table> | INFLATE TIRE 135 ± 5 PSI | NEW FLIGHT CORPORATION 3241 S. Locust Street Denver, Colorado 80222 |
| INFLATE TIRE 135 ± 5 PSI | | | |
| 90C899-015 | Placard, Cockpit Panel "THIS AIRCRAFT HAS BEEN MODIFIED. . ." | NEW FLIGHT CORPORATION 3241 S. Locust Street Denver, Colorado 80222 | |