PART NUMBER | IBM CODE | DESCRIPTION | QUANTITY
---|---|---|---
40-40B | 040-04002 | Main Wheel Assembly | 2
30-28D | 030-02804 | Brake Assembly | 2
50-68 (2 sheets) | N/A | Installation Drawing | 1
5A100GL | | Supplemental Type Certificate (310 Series) | 1
5A111GL | | Supplemental Type Certificate (320 Series) | 1
\[Brake Lining Conditioning Procedure | 1

This kit will convert one aircraft to Cleveland wheels and brakes
METALLIC BRAKE LINING CONDITIONING PROCEDURE

The brake lining material used in this brake assembly is an iron based metallic composition. This material must be properly conditioned (glazed) in order to provide optimum service life.

Dynamometer tests have shown that at low braking energies, unglazed linings experience greater wear and the brake discs can become severely scored.

Conditioning may be accomplished as follows:

1. Perform two (2) consecutive full stop braking applications from 30 to 35 kts. Do not allow the brake discs to cool substantially between stops.

2. On aircraft with tail wheels, exercise caution during stopping to prevent tail lifting. Due to the efficiency of these brakes, extremely hard braking could result in lifting the tail from the ground.

This conditioning procedure will wear off high spots and generate sufficient heat to glaze the linings. Once the linings are glazed, the braking system will provide many hours of maintenance free service.

Visual inspection of the brake disc will indicate the lining condition. A smooth surface, without grooves, indicates the linings are properly glazed. If the disc is rough (grooved), the linings must be reglazed. The conditioning procedure should be performed whenever the rough disc condition is evident.

Light use, such as in taxiing, will cause the glaze to be worn rapidly.

Use caution in performing this procedure, as higher speeds with successive stops could cause the brakes to overheat resulting in warped discs and/or pressure plates.
AVAILABILITY OF GENERAL MAINTENANCE
INFORMATION AND TORQUING PROCEDURES

EFFECTIVITY: All Parker Hannifin (Cleveland Wheels & Brakes) External Disc Design wheel & brake assemblies.

APPLICABILITY: Aircraft converted per STC approved kits to use Cleveland External Disc Design wheel & brake assemblies.

REASON: This PRM is issued to inform Wheel & Brake Conversion Kit users and installers that information regarding general maintenance and proper bolt / nut torquing procedures is available. This information is contained in the Cleveland Wheels & Brakes Component Maintenance Manual (CMM) and in the Cleveland Technicians Service Guide, PRM64. Most Cleveland Conversion Kits were designed prior to creation of the CMM. Parker Hannifin is in process of upgrading kit paperwork to include a requirement to use the CMM and PRM64 as wheel & brake service information. This PRM serves the same purpose for kits whose paperwork has not yet been upgraded.

DESCRIPTION: The Cleveland Wheels & Brakes Component Maintenance Manual and PRM64, Technician's Service Guide shall be used as service information when performing general maintenance on Cleveland External Disc Design wheels & brakes. Particular attention should be paid to instructions regarding wheel bolt torquing procedures.

NOTE: Refer to the CMM or PRM64 to determine the required torque procedure (Dry or Lubtork). While using the required torque procedure, observe the torque required to turn the nut (free running torque). This value must be added to the value stated on the casting or nameplate (or in the CMM or PRM64) to obtain a true torque value. Proper torque is imperative to prevent premature bolt or mating component failure.

COMPLIANCE: Highly Recommended.

APPROVAL: The engineering contents of this Product Reference Memo are FAA DER approved.

WEIGHT & BALANCE: Not applicable.

PUBLICATIONS: Cleveland Wheels & Brakes Component Maintenance Manual and PRM64 are available from:

Customer Support
Parker Hannifin Corporation
Aircraft Wheel & Brake
1160 Center Road
Avon, Ohio
Phone: 1-800- BRAKING (272-5464)
FAX: 216-937-5409

Initial Release  February 01, 1997
Parker Hannifin Corporation  
Aerospace/Aircraft Wheel & Brake  
1160 Center Road  
Avon, OH 44011  

Date:  _ __/ __/ 20__  

Subject: Letter ofAuthorization for Installation of STC’d Conversion Kits  

To whom it may concern:

Parker Hannifin Corporation, Aircraft Wheel & Brake Division, hereby states that the following item(s):

   KIT NUMBER: 199-__________  
   FAA APPROVAL: 1) STC # __________________  
   NO OTHER APPROVALS NECESSARY  

   AUTHORIZATION TO INSTALL: With the sale of this STC KIT, OWNER of the Supplemental Type Certificate agrees to permit the buyer or buyer’s agent or agency to use the certificate to alter the product under the terms and conditions of this STC.  

   A/C MAKE: ________________________  
   A/C MODEL ________________________  
   TAIL # __________________________

Regards,

Technical Support Team  
Technical Hotline (800) 272-5464  
Clevelandwbhelp@parker.com  
Web-site: www.clevelandwheelandbrake.com  
Manufacturer of Cleveland Wheels & Brakes
Supplemental Type Certificate

Number SA110GL

This certificate, issued to Aircraft Wheel and Brake Division, Parker Hannifin Corporation, 1160 Center Road, Avon, Ohio 44011, certifies that the change in the type design for the following product with the limitations and conditions thereby specified herein meets the airworthiness requirements of Part 3 of the Civil Air Regulations: (See Type Certificate Data Sheet 3A25 for complete certification basis)

Original Product—Type Certificate Number 3A25
Make Cessna
Model 320, 320-1, 320A, 320B, 320C, 320D, 320E, 320F (320 series S/N's 0001-D9999; 320E0001-F9999)

Install Cleveland Conversion Kit P/N 199-64 in accordance with installation drawing 50-68 dated March 17, 1981. Kit 199-64 consists of main wheel 40-40B(2), brake 30-28 D(2) and installation instructions.

Limitations and Conditions This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the interrelationship between this change and any of those other previously approved modifications will introduce no adverse effect upon the airworthiness of the aircraft. This determination should include consideration of significant changes in weight distribution such as an increase in the fixed disposable weight in the fuselage.

This certificate and the supporting data which is the basis for approval shall remain in effect until surrendered, suspended, revoked, or a termination date is otherwise established by the Administrator of the Federal Aviation Administration.

Date of application February 19, 1976 Date issued October 28, 1980
Date of issuance June 30, 1976 Date amended April 1, 1981

W. F. Horn, Jr. (Signature)
Chief, Engineering & Manufacturing Branch, Great Lakes Region AGL-210

Any alteration of this certificate is punishable by a fine of not exceeding $1,000, or imprisonment not exceeding 3 years, or both.

This certificate may be transferred in accordance with FAR 21.47
Supplemental Type Certificate

Number SA111GL

This certificate, issued to Aircraft Wheel and Brake Division, Parker Hannifin Corporation, 1160 Center Road, Avon, Ohio 44011, certifies that the change in the type design for the following product with the limitations and conditions thereto as specified herein meets the airworthiness requirements of Part 3 of the Civil Air Regulations. (See Type Certificate Data Sheet 3A10 for complete certification basis)

Original Product — Type Certificate Number 3A10
Make Cessna

Description of Type Design Change
Install Cleveland Conversion Kit P/N 199-64 in accordance with installation drawing 50-68 dated March 17, 1981. Kit 199-64 consists of main wheel 40-40 B(2), brake 30-28 D(2) and installation instructions.

Limitations and Conditions. This approval should not be extended to other aircraft of this model on which other previously approved modifications are incorporated unless it is determined by the installer that the interrelationship between this change and any of those other previously approved modifications will introduce no adverse effect upon the airworthiness of the aircraft. This determination should include consideration of significant changes in weight distribution such as an increase in the fixed disposable weight in the fuselage.

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