#### AIRCRAFT WHEEL & BRAKE DIVISION

#### PARKER HANNIFIN CORPORATION

AVON, OHIO

PARTS LIST

#### 199-12400 CONVERSION KIT

#### BEECH MUSKETEER

SA718GL	Supplemental Type Certificate	1
PRM No. 13 A	Non Asbestos Lining Conditioning Procedure.	1
50-88	Installation Drawing	1
067-07200	Axle Spacer	2
095-03300	Axie Washer	2
095-10400	Washer (AN960-416)	16
094-10300	Nut (AN365-428)	8
103-10600	Bolt (AN4-23A)	8
40-113C	Wheel Assembly	2
30-75B	Brake Assembly	2
PART NUMBER	DESCRIPTION	QUANTITY

THIS KIT WILL CONVERT ONE AIRCRAFT TO CLEVELAND WHEELS & BRAKES

NOTE: FOR USE WITH MIL-H-5606 (RED OIL)

APPLICABLE MODELS: MUSKETEERS: S/N M-2 thru M1361

S/N MA-1 thru MA-368 S/N MB-1 thru MB-521 S/N MC-2 thru MC-97

(A)

164-43 BRAKE DISC ASS'Y

REPLACE WHEN WORN TO

(2) 067-07200 AXLE SPACER-

SEE DETAIL A

66-105 LINING-

REPLACE WHEN WORN

TO JOO THK, (TYP.)

MOUNTING INFORMATION

FOR TORQUE PLATE

P/N 075-07800 (REF.)

(2)103-10600 BOLT (4 EAJ)

094-10300 NUT (4 EA.) 095-10400 WASHER (8EA.)

.205 THK.

OTHERS EXCEPT WITH THE WRITTEN CONSENT OF PARKER, WILL NOT BE USED FOR ANY PURPOSE OTHER THAN CONDUCTING BUSINESS WITH PARKER, AND WILL BE RETURNED AND ALL FURTHER USE DISCONTINUED UPON REQUEST BY PARKER. COPYRIGHT PARKER. YEAR OF

50-88 DESCRIPTION OF CHANGE CHG. DATE CHK'D Z87-2 B "66-105" was "66-30"

### INSTALLATION INSTRUCTIONS

- I. PROPERLY JACK-UP AIRCRAFT.
- 2. DEFLATE TIRES AND REMOVE EXISTING MAIN WHEELS, RETAINING AXLE NUT.
- 3. BLOCK BRAKE PEDALS. DISCONNECT AND CAP HYDRAULIC BRAKE LINE AT BRAKE INLET REMOVE EXISTING BRAKE ASS'Y, BRAKE AND WHEEL SPACERS, AND MOUNTING HARDWARE,
- 4. INSTALL TORQUE PLATE (P/N 075-07800), POSITIONED AND LOCATED AS SHOWN. USE NEW BOLTS (P/N 103-10600), NUTS (P/N 094-10300), AND WASHERS (P/N 095-10400). TORQUE AT 75-90 IN-LBS.
- 5. SLIDE SPACER (PIN 067-07200) INTO INNER GREASE SEAL OF WHEEL .
- 6. INSTALL 40-113C WHEEL AND SPACER (WITH TIRE MOUNTED) ON AXLE, SLIDE WASHER (P/N 095 - 03300) ONTO AXLE, FOLLOWED BY EXISTING AXLE NUT (AN702-24).
  WHILE ROTATING WHEEL, TIGHTEN AXLE NUT TO 40 IN-LBS, THEN BACK OFF TO "O". NEXT, WHILE ROTATING WHEEL, TIGHTEN AXLE NUT TO 20 IN-LBS. IF SLOT IN NUT AND HOLE IN AXLE DO NOT ALIGN, ROTATE NUT (TIGHTENING OR LOOSENING) UNTIL NEAREST POSSIBLE ALIGNMENT IS REACHED AND INSTALL COTTER PIN. INSTALL EXISTING HUBCAP, IF USED.
- REMOVE BACKPLATE FROM THE 30-75B BRAKE ASS'Y. SLIDE BRAKE ASS'Y INTO THE TORQUE PLATE.
- PLACE BACKPLATE BETWEEN BRAKE DISC AND WHEEL FLANGE, ALIGN WITH
- 9. CONNECT EXISTING BRAKE LINE TO INLET FITTING. REMOVE BRAKE PEDAL BLOCKS AND BLEED SYSTEM.
- 10. DEPRESS AND RELEASE PEDALS SEVERAL TIMES. ROTATE WHEELS BY HAND, CHECKING FOR DRAG, A SLIGHT AMOUNT OF DRAG IS NOT DETRIMENTAL; HOWEVER, A SEVERELY BOUND UNIT SHOULD BE INVESTIGATED AND CORRECTED. EXCESSIVE DRAG CAN BE CAUSED BY IMPROPERLY SEATED LININGS.
- IL REMOVE AIRCRAFT FROM JACKS AND CONDITION LININGS PER ENCLOSED SHEET. 12. WEIGHT AND BALANCE
  - 40-1130 WHEEL ASS'Y WEIGHS Z31 LBS. 30-75B BRAKE ASS'Y WEIGHS 1.91 LBS.

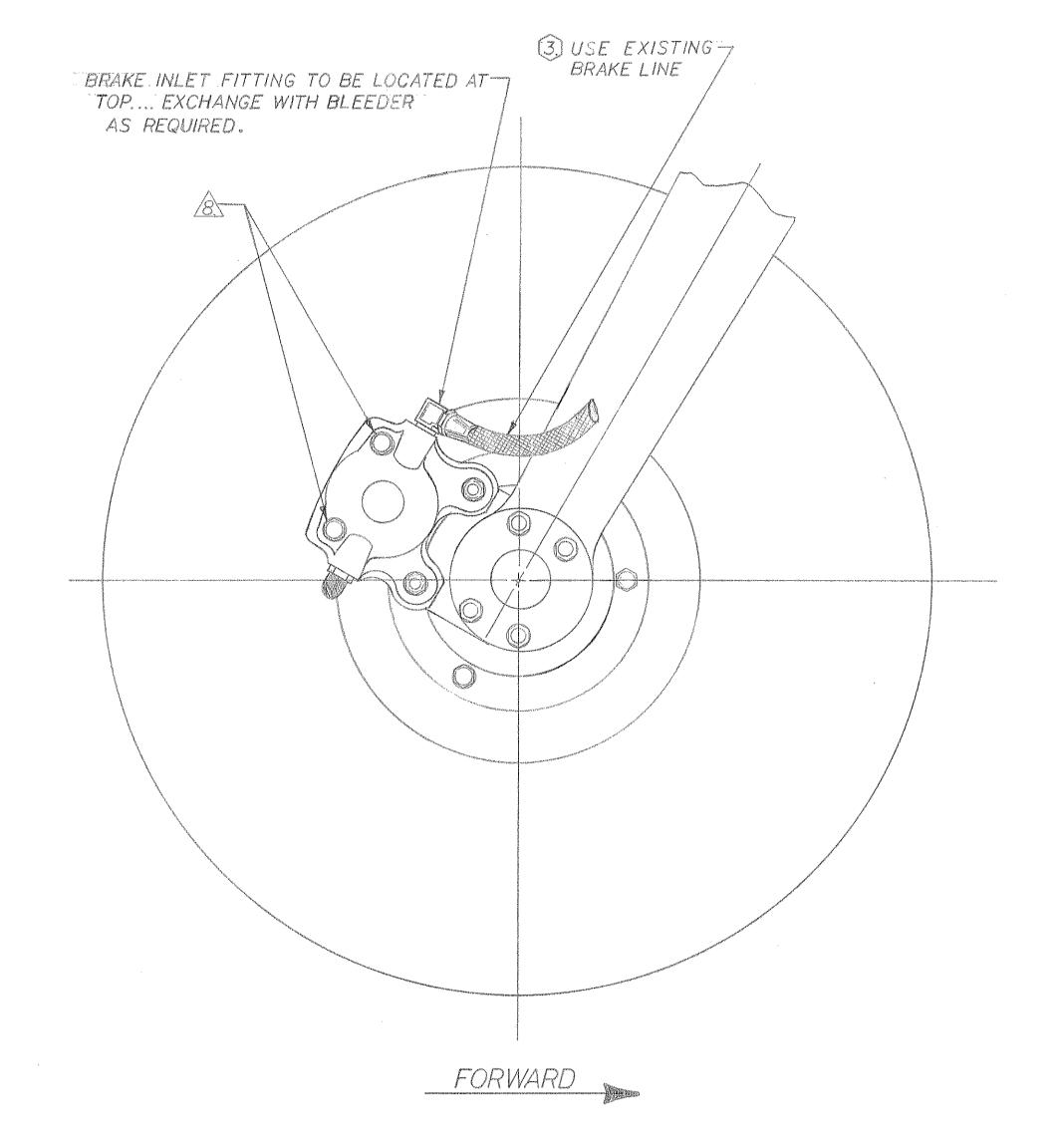
WEIGH ORIGINAL WHEELS AND BRAKES AND REVISE WEIGHT AND BALANCE DATA IN LOGBOOK.

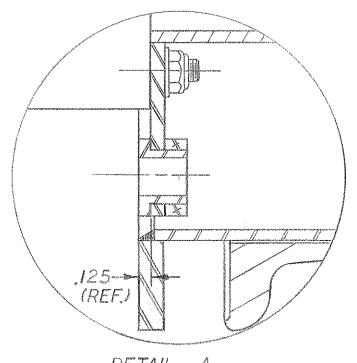
### NOTES

I THIS DRAWING DESCRIBES THE INSTALLATION OF CLEVELAND CONVERSION KIT P/N 199-124 ON THE FOLLOWING BEECH AIRCRAFT.

NAME	MODEL NUMBER	SERIAL NUMBER
MUSKETEER	A23-19, 19A, M19A, & B19	MB-I THRU MB-521
MUSKETEER	23, A23, A23A, B23, & C23	M-2 THRU M-1361
MUSKETEER	A23-24 & A24	MA-1 THRU MA-368
MUSKETEER	A24R	· MC-2 THRU MC-97

- (2) COMPONENTS SUPPLIED IN CLEVELAND KIT NO. 199-124.
- (3) COMPONENTS NOT SUPPLIED IN CLEVELAND KIT NO. 199-124, TO BE RETAINED AND USED IN THIS INSTALLATION.
- (4) "INBOARD" ON A24R MODEL AIRCRAFT (WITH RETRACTABLE GEAR).
  "OUTBOARD" ON ALL OTHER APPLICABLE MODELS.





UP

JUSE EXISTING TIRE

EQUIPMENT LIST

OR APPLICABLE TIRE

SEE NOTE (A)

(3) HUBCAP, BEECH

(OPTIONAL)

P/N 169-810000-29

-(3) AXLE NUT, AN 702-24

40-113C 6.00-6 TYPE III

-(2) 095-03300 AXLE WASHER

PER APPROVED AIRCRAFT

50-88 INSTALLATION PART NO. QTY QTY ITEM DESCRIPTION MATERIAL & SPEC. HEAT TREAT & SPEC. QTY PATTERN, CASTING OR BLANK NO. Cleveland Wheels & Brakes Aircraft Wheel and Brake Division THIS DESIGN IS THE PROPERTY WORK TO DIMENSIONS -ZYGLO PER MIL-1-6866 Parker Hannifin Corporation
1160 Center Road DO NOT SCALE
TOLERANCE FOR .XXX ± .010
TOLERANCE FOR .XX ± .030
TOLERANCE FOR ANGULAR DIMS. ± 1/2 OF PARKER HANNIFIN CORP. STAMP M ON PART **-Parker** AIRCRAFT WHEEL AND BRAKE MAGNAFLUX PER MIL-1-6868 DIVISION AND IS NOT TO BE STAMP P ON PART SEACE Avon, Ohio 44011 COPIED, DUPLICATED, OR USED OLERANCE FOR FRACTIONAL DIMS. MACHINED SURFACES PER AS THE BASIS FOR MANUFAC-MIL STD 10 UNLESS OTHERWISE NOTED BREAK SHARP EDGES .010 UNLESS 50-88 TURE OR SALE OF EQUIPMENT NOTED. REMOVE ALL BURRS BEFORE INSTALLATION DRAWING PLATING, DRILL PER INSP. PROCEDURE WITHOUT OUR WRITTEN PER-AND INSTRUCTIONS THREADS PER MIL-S-7742

BANKE TARRETT CAMP

104 3 708

GPO Box 367 Canberra ACT 2601 Australia Telephone (06) 268 4111 Telex 62221 Fax (06) 268 5683

Ref: F94/0793

AUSB

The Manager Aircraft Wheel and Brake Division Parker Hannifin Corporation 1160 Centre Road P.O. Box 158 Avon OH 44011 U.S.A.

Dear Sir.

Re: FAA STC SA718GL - Beech A23A

We have received an application from;

Peregrine Engineering Pty. Ltd. P.O. Box 491 Mentone VIC 3194 Australia,

- for installation of Cleveland Wheel and Brake Conversion Kit 199-124 dated November 17, 1983.

This is to advise that the subject STC has been validated and entered in the "Register of Foreign Supplemental Type Certificates Acceptable in Australia.

Please advise this office of any subsequent revisions to this STC.

Yours faithfully

Ray Brent

Manager

Structures and Certification

6 December 1994

### Cleveland

Wheels & Brakes

Parker Hannifin Corporation
Aircraft Wheel & Brake
1160 Center Road
Avon, Ohio 44011 USA
1-800-BRAKING (272-5464)
216-937-1272 ● FAX 216-937-5409

# PRODUCT REFERENCE MEMO

### CONDITIONING PROCEDURE FOR NON ASBESTOS ORGANIC BRAKE LINING

The brake lining material used in this brake assembly is a non asbestos organic composition. This material must be properly conditioned in order to provide maximum performance and service life.

Conditioning may be accomplished as follows:

- 1. Taxi aircraft for 1500 feet with engine at 1700 rpm applying brake pedal force as needed to develop a 5 10 mph taxi speed.
- Allow brakes to cool for 10 15 minutes.
- 3. Apply brakes and check to see if a high throttle static run up may be held with normal pedal force. If so, conditioning is completed.
- 4. If static run up cannot be held, repeat steps 1 through 3 as needed to successfully hold.

This conditioning procedure will generate sufficient heat to create a thin layer of glazed material at the lining friction surface. Normal brake usage should generate enough heat to maintain the glaze throughout the life of the lining.

Light brake usage can cause the glaze to wear off, resulting in reduced brake performance. In such cases, the lining may be conditioned again following the instructions set forth in this PRM.



### Cleveland

Wheels & Brakes

Parker Hannifin Corporation
Aircraft Wheel & Brake
1160 Center Road
Avon, Ohio 44011 USA
1-800-BRAKING (272-5464)
216-937-1272 ● FAX 216-937-5409

# PRODUCT REFERENCE MEMO

## 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 Phone: 1-800- BRAKING (272-5464)

Avon, Ohio FAX: 216-937-5409





Parker Hannifin Corporation Aerospace/Aircraft Wheel & Brake 1160 Center Road Avon, OH 44011

Clevelandwbhelp@parker.com

Web-site: <a href="www.clevelandwheelandbrake.com">www.clevelandwheelandbrake.com</a> Manufacturer of Cleveland Wheels & Brakes

Date://20
Subject: Letter of Authorization 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

#### United States of America

#### Department of Transportation—Federal Aviation Administration

# Supplemental Type Certificate

Number SA718GL

This certificate; issued to

Aircraft Wheel and Brake Division Parker Hannifin Corporation

1160 Center Road P. O. Box 158

cortifies that the change in the My redesign for the following product with the limitations and conditions

therefor as specified hereon meets the airworthiness requirements of Part

3 dithe Civil Air

Regulations.

(See Type Certificate Data Sheet A1CE for complete certification basis).

Original Product - Trype Certificate Number A1CE

Make Beech

Model 23, A23, A23A, B23, C23, A23-24, A24, A23-19, 19A, M19A, B19 and A24R

Description of Type Design Change Installation of Cleveland Wheel and Brake Conversion Kit 199-124 in accordance with Cleveland Drawing 50-88, Revision A, dated November 10, 1983 or later FAA approved revisions on the following aircraft serial numbers:

> M-2 thru M-1361 MA-1 thru MA-368 MB-1 thru MB-521 MC-2 thru MC-97

Limitations and Conditions

The compatibility of this modification with other previously approved modifications must be determined by the installer.

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

August 18, 1983

Sale reissued

Date of issuance

November 17, 1983

Date amended

TAN AVIATION TO THE PROPERTY OF THE PROPERTY O

By threftier of the fildministrater

Manager, Chicago Aircraft Certification Office, ACE-115C, FAA, Central Region

(Title)

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