

AIRCRAFT WHEEL & BRAKE DIVISION

PARKER HANNIFIN CORPORATION

AVON, OHIO

PARTS LIST

199-12400 CONVERSION KIT

BEECH MUSKETEER

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

THIS KIT WILL CONVERT ONE AIRCRAFT TO CLEVELAND WHEELS & BRAKES

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

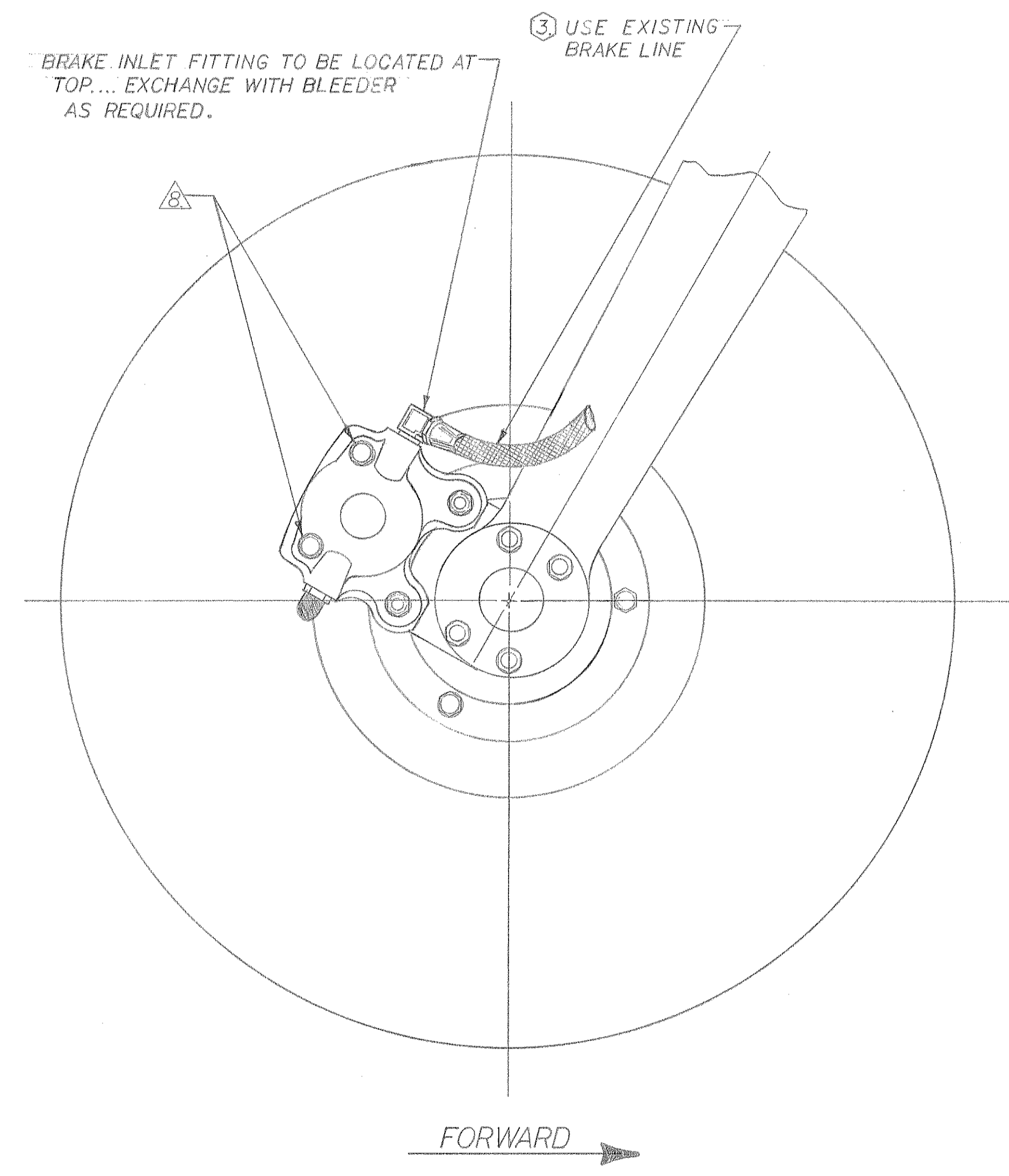
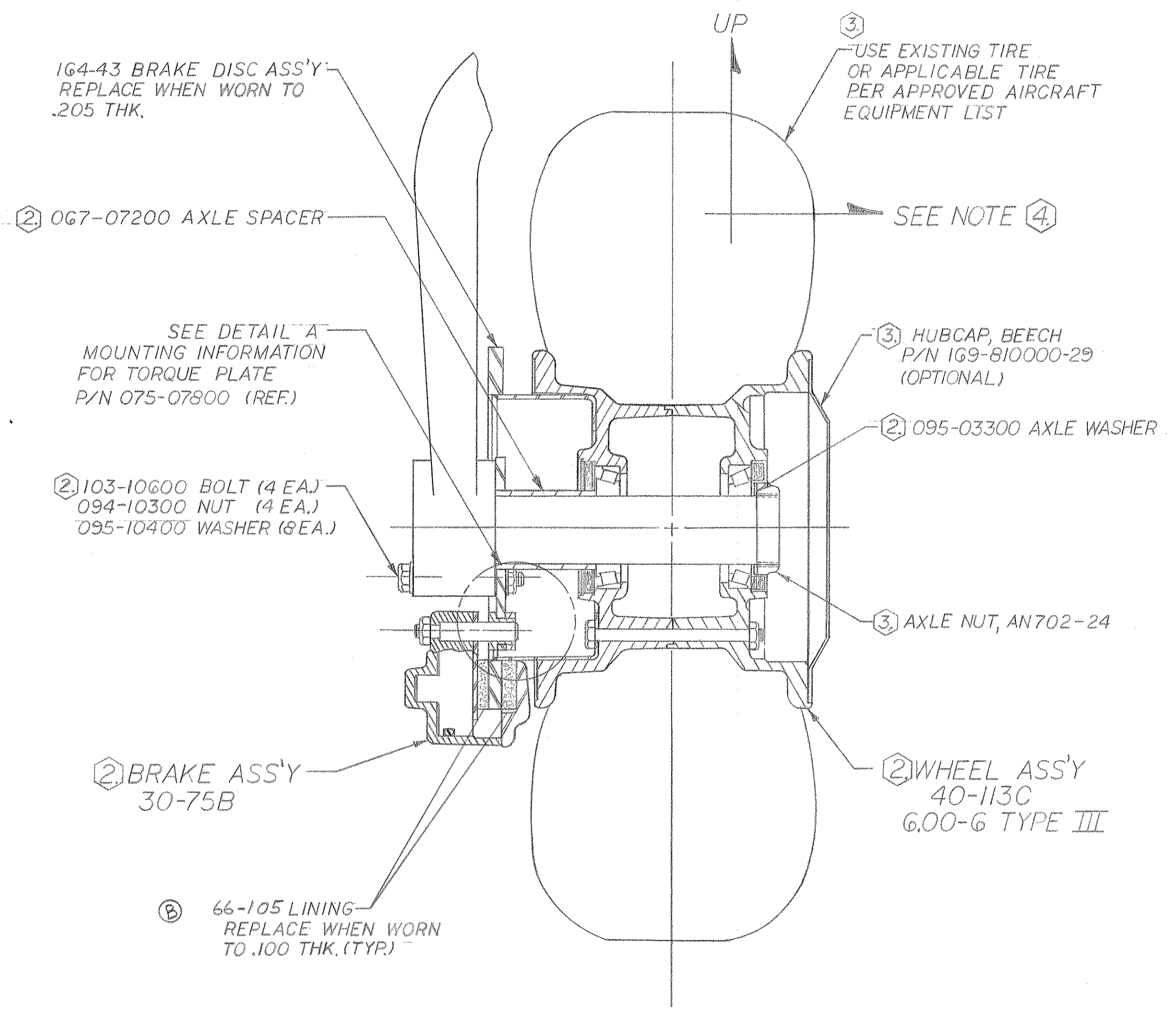
APPLICABLE MODELS: MUSKETEERS: S/N M-2 thru M1361
S/N MA-1 thru MA-368
S/N MB-1 thru MB-521
S/N MC-2 thru MC-97

199-12400
08-16-83 Init. Rel. C/N
273-6
12-23-87 REV. A (287-22)

DO NOT SCALE

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50-88					B
CHANGE NOTICE	LET-TER	DESCRIPTION OF CHANGE	CHG BY	DATE	CHKD BY
273-16	A	REVISED INSTRUCTIONS		11/76	
287-22	B	"66-105" was "66-30"		12-21-88	



INSTALLATION INSTRUCTIONS

1. 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 (P/N 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 "0". 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.
7. REMOVE BACKPLATE FROM THE 30-75B BRAKE ASS'Y. SLIDE BRAKE ASS'Y INTO THE TORQUE PLATE.
8. PLACE BACKPLATE BETWEEN BRAKE DISC AND WHEEL FLANGE, ALIGN WITH TIE BOLTS AND TIGHTEN. TORQUE AT 80-90 IN-LBS.
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.
11. REMOVE AIRCRAFT FROM JACKS AND CONDITION LININGS PER ENCLOSED SHEET.
12. WEIGHT AND BALANCE
40-113C WHEEL ASS'Y WEIGHS 7.31 LBS.
30-75B BRAKE ASS'Y WEIGHS 1.91 LBS.

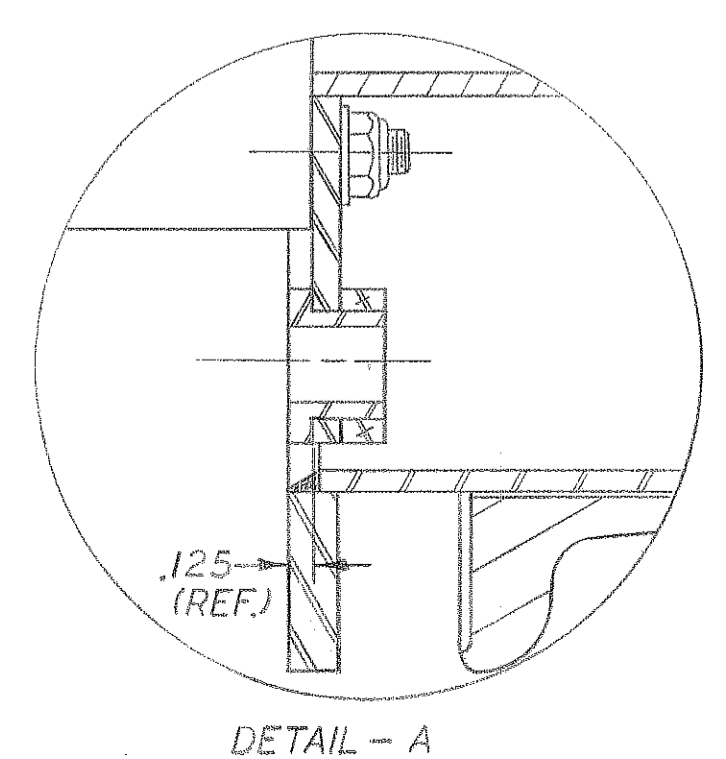
WEIGH ORIGINAL WHEELS AND BRAKES AND REVISE WEIGHT AND BALANCE DATA IN LOGBOOK.

NOTES

1. 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-1 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.



50-88		INSTALLATION										
QTY	ITEM	PART NO.	DESCRIPTION	MATERIAL & SPEC.	HEAT TREAT & SPEC.	FINISH & SPEC.				WGT.		
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INSTALLATION DRAWING AND INSTRUCTIONS							50-88					

PARKER HANNIFIN CORP

109 3 1995

AU 5 B

Ref: F94/0793

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;

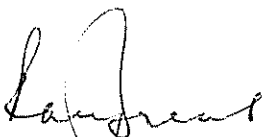
Peregrine Engineering Pty. Ltd.
P.O. Box 491
Mentone VIC 3194
Australia,

- 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

16 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.
2. 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

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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
Avon, Ohio

Phone: 1-800- BRAKING (272-5464)
FAX: 216-937-5409



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

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
Clevelandwbhelp@parker.com
Web-site: www.clevelandwheelandbrake.com
Manufacturer of Cleveland Wheels & Brakes

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
Avon, OH 44011

*certifies that the change in the type design for the following product with the limitations and conditions
therefor as specified hereon meets the airworthiness requirements of Part 3 of the Civil Air*

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

Original Product — Type 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

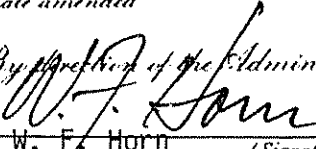
Date issued

Date of issuance

November 17, 1983

Date amended



By  *of the Administrator*

W. F. Horn

(Signature)

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.

This certificate may be transferred in accordance with FAR 21.47