

AIRCRAFT WHEEL & BRAKE DIVISION

PARKER HANNIFIN CORPORATION

AVON, OHIO

PARTS LIST

199-212 BRAKE DE-ICE MANIFOLD SUPPORT KIT

BEECH 1900C

<u>PART NUMBER</u>	<u>CODE NO.</u>	<u>DRAWING REVISION</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
NAS1303-1	103-02700	-----	Bolt	4
139-19101	139-19101	Rev. N/C, dated 11-24-92	Bracket Assembly	2
Ⓐ 199-212	Manual	Rev. N/C, dated 06-01-93	Installation Instructions	1

This Kit supplements the 199-184 Kit.
 Two 199-212 Kits are required to
 convert one Beech 1900C with
 Brake De-ice to Cleveland
 Main Wheels & Brakes.

199-212
 REV. NC 3-31-93 (308-7)
 REV. A 6-1-93 (308-51) 88

CLEVELAND WHEELS & BRAKES
BRAKE DE-ICE MANIFOLD SUPPORT KIT
INSTALLATION MANUAL
KIT NUMBER 199-212
BEECH MODEL 1900C



Aircraft Wheel & Brake Division

Parker Hannifin Corporation
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Avon, OH 44011

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CLEVELAND WHEELS & BRAKES
INSTALLATION MANUAL
WITH
ILLUSTRATED PARTS LIST
FOR
BRAKE DE-ICE MANIFOLD SUPPORT KIT
199-212
FOR
BEECH MODEL 1900C AIRCRAFT
INITIAL RELEASE JUNE 1993
AIRCRAFT WHEEL AND BRAKE DIVISION
PARKER HANNIFIN CORPORATION
1160 CENTER ROAD U.S.A.
AVON, OHIO 44011

JUNE 1993

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INSTALLATION INSTRUCTIONS
Cleveland Wheels & Brakes Conversion Kit 199-212

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INSTALLATION INSTRUCTIONS
Cleveland Wheels & Brakes Conversion Kit 199-212

LIST OF REVISIONS

REVISION	DATE	PAGE	DESCRIPTION	APVD
Initial Release	06/01/93	---	Installation Instructions Cleveland Wheels & Brakes Brake De-ice Manifold Support Kit 199-212	BB

INSTALLATION INSTRUCTIONS
Cleveland Wheels & Brakes Conversion Kit 199-212

1. INTRODUCTION.

1.1 This manual is published for the guidance of personnel responsible for the installation of Cleveland Brake De-ice Manifold Support Kit 199-212.

1.2 The Cleveland 199-212 Kit contains all materials and instructions needed to replace two Beech P/N 101-810072-1 Brake De-ice Manifold Support Assemblies with two Cleveland P/N 139-19101 Brake De-ice Manifold Support Assemblies. Aircraft equipped with the Beech Brake De-ice System will need to purchase two 199-212 Kits in order to convert their aircraft over to Cleveland Wheels and Brakes (Kit 199-184). The 199-212 Kit will replace a Beech Brake De-ice Manifold for UA-1 and after, UB-1 and after, and UC-1 to UC-54.

2. PMA NOTICE.

2.1 The 139-19101 Manifold Support Assembly used in this conversion kit carries a "PMA" marking which identifies them as having met the applicable Federal Aviation Agency (FAA) specifications and requirements.

2.2 Substitution of critical parts or changes of processes or materials are not permitted without requalification of the assemblies and resubmittal to the FAA for approval.

2.3 FAA regulations subject both Parker Hannifin, Aircraft Wheel and Brake Division and the user to constant surveillance to assure that uncompromising Quality Assurance materials and processing controls are maintained in order to provide replacement parts that are the same as the parts originally certified in the assembly.

3. APPLICABILITY.

3.1	"KIT 199-212":	MAKE	MODELS
		Beech	1900C Serial Numbers UA-1 and after, UB-1 and after, and UC-1 to UC-54 equipped with Beech Brake De-ice and currently using Beech P/N 101-810071-1 Brake De-icing Manifold.

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Cleveland Wheels & Brakes Conversion Kit 199-212

4. ORDER INFORMATION.

4.1 To order spare parts, contact the nearest Parker Hannifin, Aircraft Wheel & Brake distributor in your area, or call Parker Hannifin, Aircraft Wheel & Brake Division, Customer Service for assistance at:

1-800-272-5464 (Outside Ohio)
or
(216) 937-6211
Fax: (216) 937-5409

5 DESCRIPTION.

5.1 The Parker Hannifin 139-19101 Brake De-ice Manifold Support Assembly is fabricated from alloy steel. Its purpose is to fasten to the Beech P/N 101-810071-1 Brake De-icing Manifold via six Support Assembly clip nuts.

6. OPERATION.

6.1 Please refer to the Flight Manual Supplement and the Flight Manual for the Description of Operation of the Brake De-ice System.

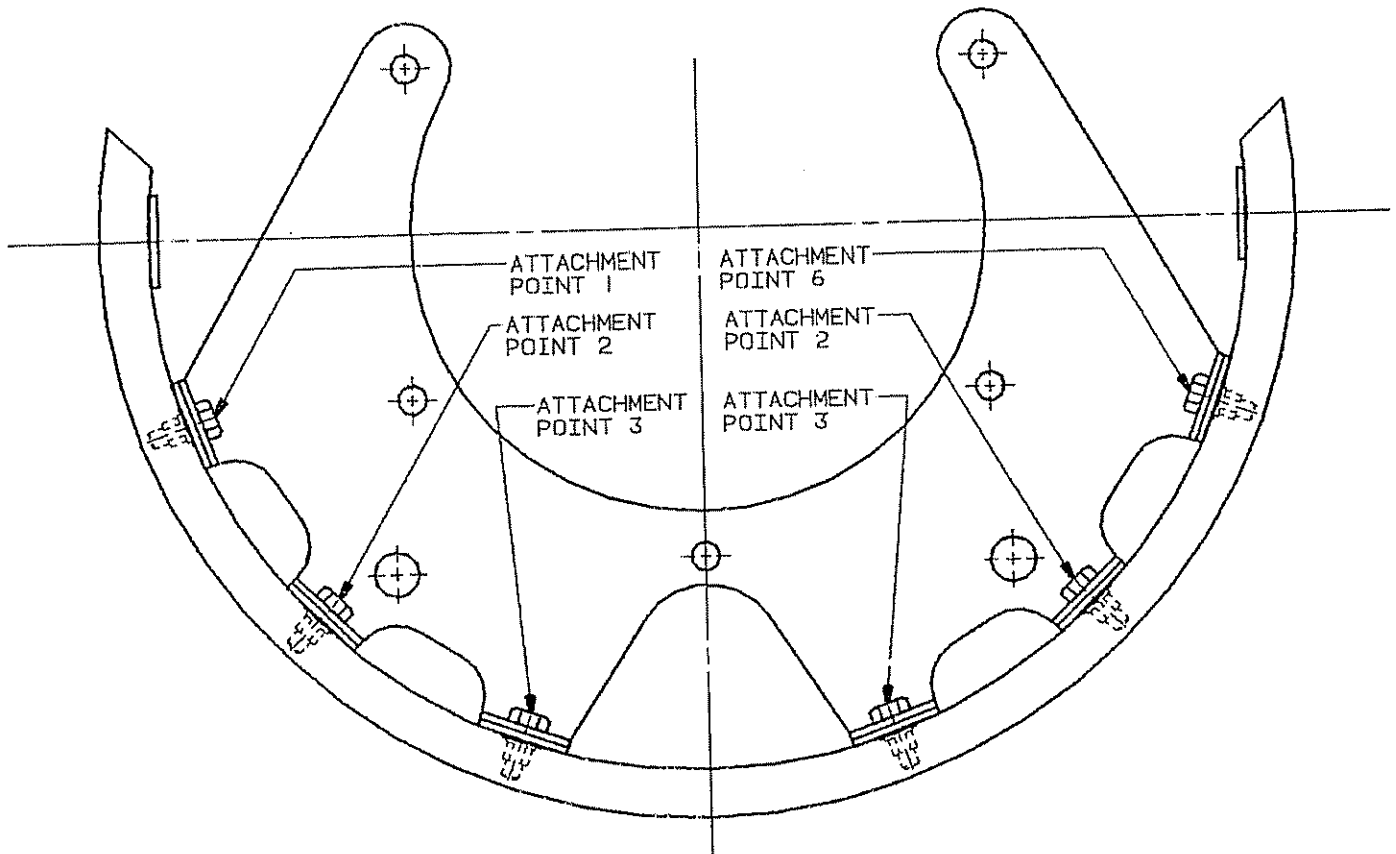
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7. INSTALLATION.

7.1 Follow the instructions in the 199-184 installation manual for installation of the main wheels and brakes, with the following exceptions:

7.2 Fasten the brake de-icing manifold to one 139-19101 bracket as shown; use two 103-02700 (NAS 1303-1) bolts (supplied in Kit 199-212) at attachment points 2 and 5. Use the existing hardware for connection points 1, 3, 4, and 6. Use the existing washers at all attachment points. Torque to 35 - 50 in.lbs.

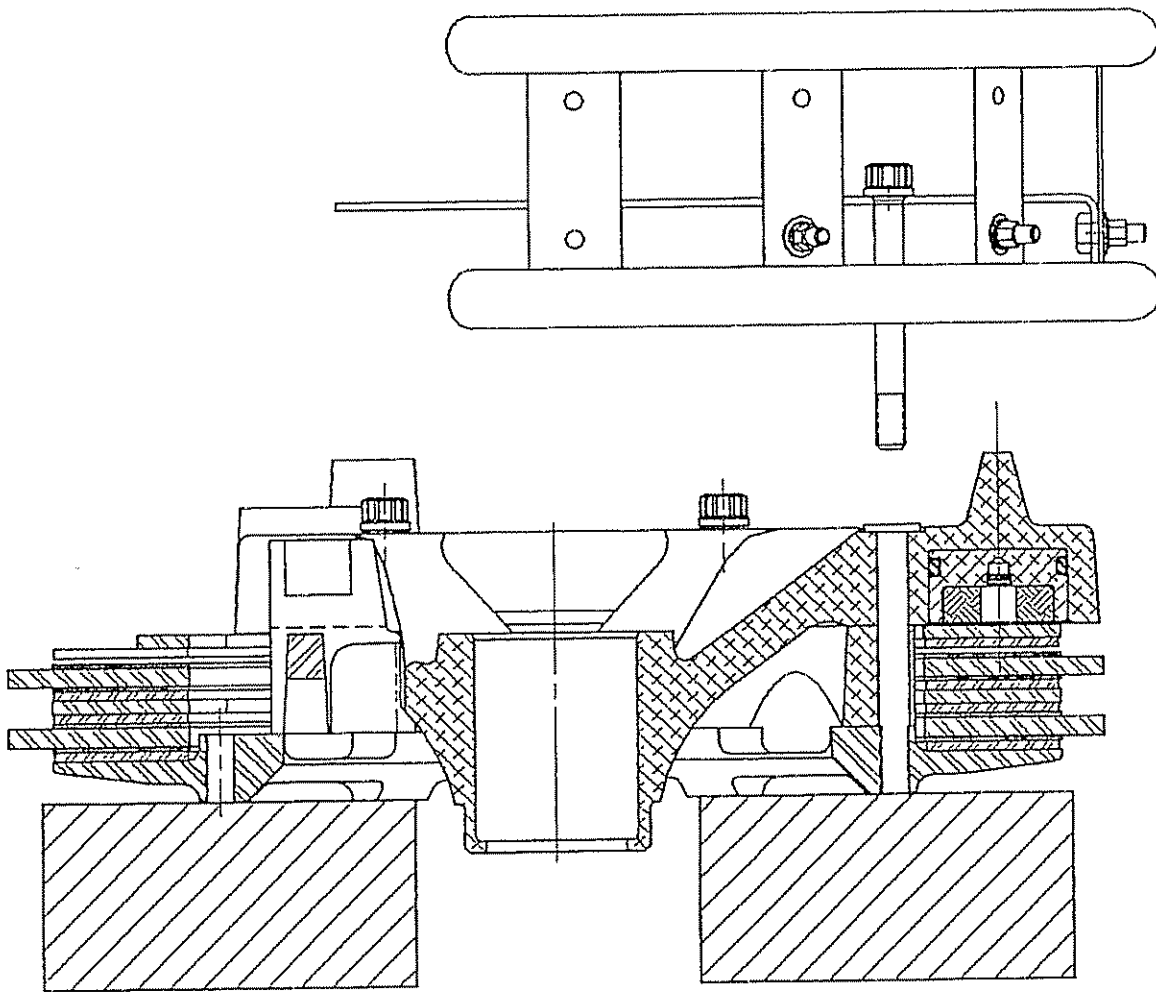


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7.3 Place one 30-204 brake assembly on a flat surface cylinder side up, supported by two 2 x 4's as shown below and remove the five (5) backplate bolts.

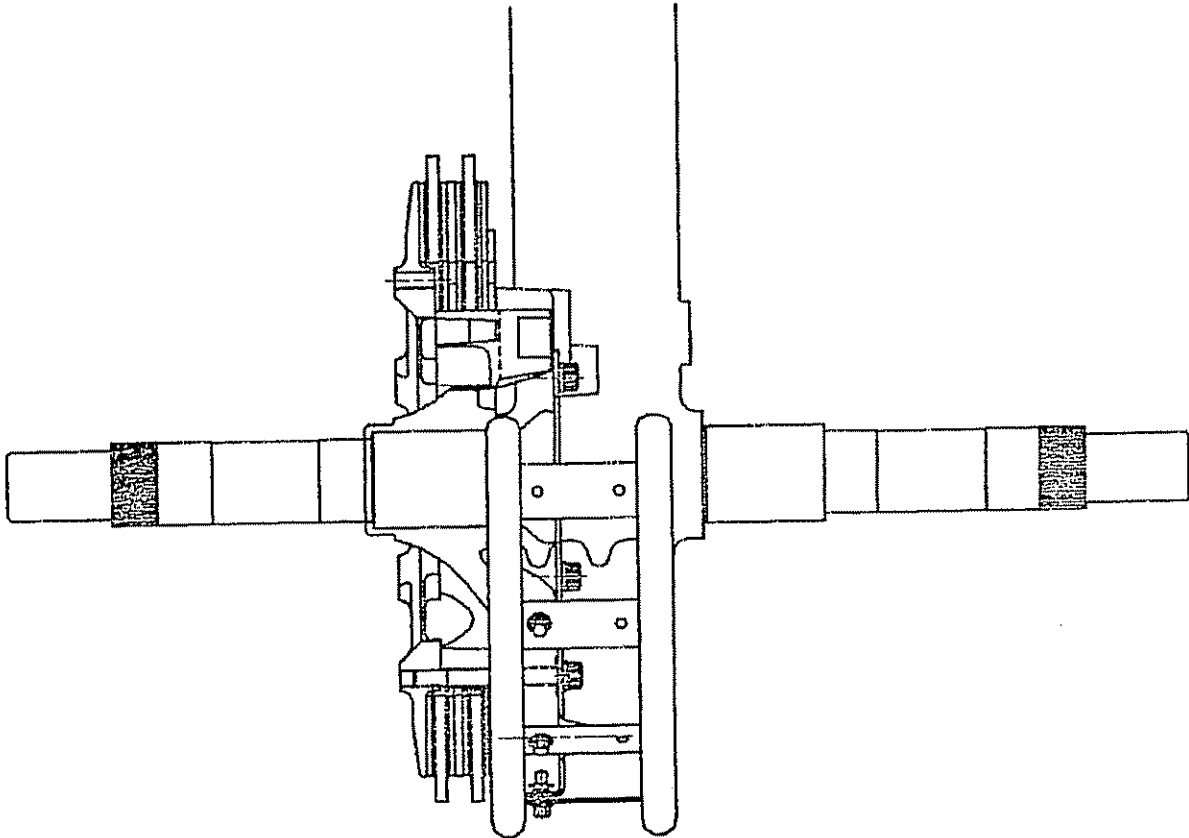
7.4 Install the bracket/manifold assembly on the brake as shown using the five (5) backplate bolts with the bracket sandwiched between the washer and the bolt head as shown on the 50-137 installation drawing, View B.



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7.5 Slide the brake/bracket/manifold assembly onto the strut as shown. Make sure that the hot air manifold connection lines up with the hot air hose connection.



7.6 Place another 30-204 brake assembly on a flat surface, cylinder side up, supported by 2 x 4's as before, and install a 139-19101 bracket as per Section 7.4.

- NOTE -

The brake is non-handed. Interchange the plug and the inlet fitting as needed.

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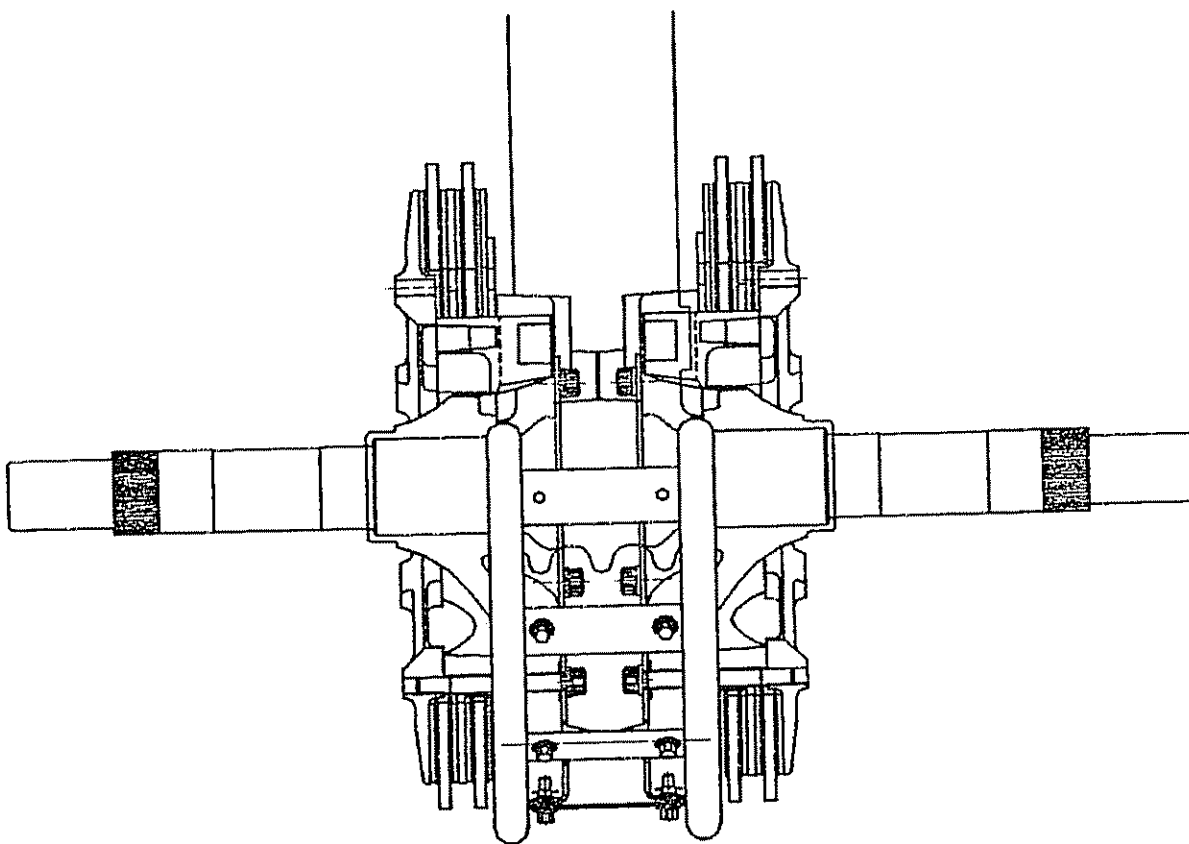
7.7 Slide this brake/bracket assembly on the opposite side of the strut.

7.8 Install the swivel fitting (hydraulic T-fitting) between the two brake assemblies.

7.9 Fasten the hot Air Manifold to the second bracket as shown as per Section 7.2..

- NOTE -

Only twelve (12) bolts, clip nuts, and washers are used per manifold. The four upper most attachment points are eliminated.



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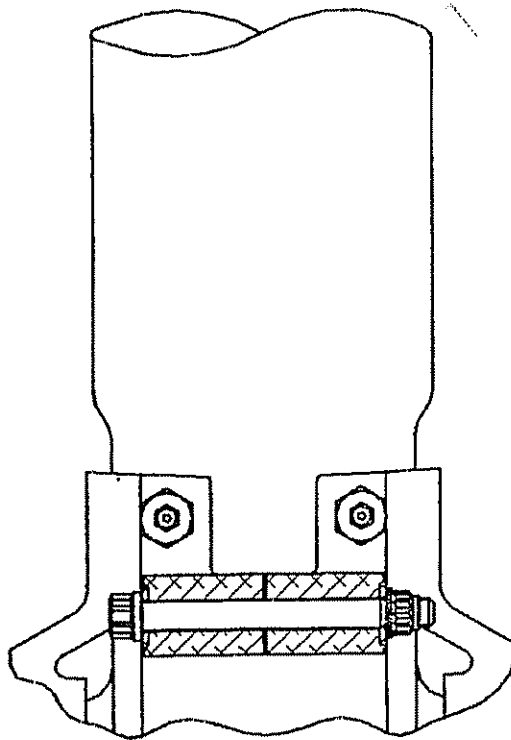
INSTALLATION INSTRUCTIONS
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7.10 Draw the two cylinder assemblies together using the two brake tie bolts, two nuts, and four washers shown as items 3, 4, and 5 on the 50-137 installation drawing. Lubtork these bolts to 150 in-lbs.

7.11 Wait until the aircraft is lowered off of the jacks before beginning to re-attach the brake de-ice hose assembly.

7.12 Repeat this procedure for the opposite strut.

7.13 Follow the remaining instructions in the 199-184 Kit Installation Manual to complete the Kit installation.



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8. WEIGHT AND BALANCE COMPUTATIONS

The weight difference between Parker P/N 139-19101 and the Beech P/N 101-810072-1 Brake De-ice Manifold Support Assembly is negligible.

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9.0 KIT PARTS LIST.

AIRCRAFT WHEEL & BRAKE DIVISION

PARKER HANNIFIN CORPORATION

AVON, OHIO

PARTS LIST

199-212 BRAKE DE-ICE MANIFOLD SUPPORT ASSEMBLY KIT

BEECH 1900C

<u>PART NO.</u>	<u>CODE NO.</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
139-19101	139-19101	Bracket Assembly	2
103-02700	103-02700	Bolt, NAS1303-1	4
199-212 Manual		Installation Manual	1

THIS KIT SUPPLEMENTS THE 199-184 KIT.
TWO 199-212 KITS ARE REQUIRED TO
CONVERT ONE BEECH 1900C WITH
BRAKE DE-ICE TO CLEVELAND
MAIN WHEELS & BRAKES.

June, 1993

