

# Cleveland

Wheels & Brakes

Parker Hannifin Corporation

**Aircraft Wheel & Brake**

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# PRODUCT REFERENCE MEMO

## 30-146 CYLINDER INTERCONNECT HOSE INSTALLATION

**APPLICABILITY:** All aircraft converted to Cleveland Main Wheels and Brakes per Parker Hannifin, Aircraft Wheel & Brake Conversion Kit No.199-110, per STC's SA646GL, SA650GL and SA890GL:

Beech Models 99, 99A, A99A, B99, C99, 100, A100, B100, F90, 200, 200C, 200CT, 200T, A200, A200C, A200CT, B200, B200C, B200CT and B200T

**PURPOSE:** Provide for installation of a new primary cylinder interconnect hose. Use of new hose maintains brake to ground clearance and improves cylinder movement relative to the torque plate.

**RECOMMENDED:** Installation recommended at or before next annual inspection.

**PROCEDURE:** Install brake interconnect hose and torque per referenced handbook.

1. Jack aircraft and remove wheels and brakes per Airframe Manual.
2. Remove existing hose assembly P/N 207-01600 and fittings P/N 104-04900 from each brake.
3. Install new 45° fittings, P/N 104-04700 in each cylinder and install brake interconnect hose as shown in Figure 1.
4. The brake hose can be straight as shown in Figure 1, or arched upward as needed for proper fit as shown in Figure 2. Brake line length varies with manufacturing tolerances and various appearances will result when fitting the new line to the brake. The maximum upward arch is .400 inch above the cylinder bolts and clear of the de-ice manifold, if installed.

Once the hose is positioned to provide maximum cylinder freedom of movement in the torque plates, maintain the fitting angle and tighten the jam nut to the cylinder followed by the nut on the hose fitting. Repeat for other side and verify both cylinders have freedom of movement in the torque plates. Make minor angular adjustments of the fittings until maximum cylinder freedom of movement is obtained. Secure the jam nut to the cylinder to 65-70 inch lbs and hose fitting to 110 inch lbs.

5. After line nuts and fittings are tightened, assure that both cylinders slide freely (as a unit) in the torque plate.
6. Repeat procedure for all four (4) brakes then, reinstall brakes and wheels per airframe manual.
7. Bleed brake system and remove aircraft from jacks.
8. Make a log book entry referencing this activity and return the aircraft to service.

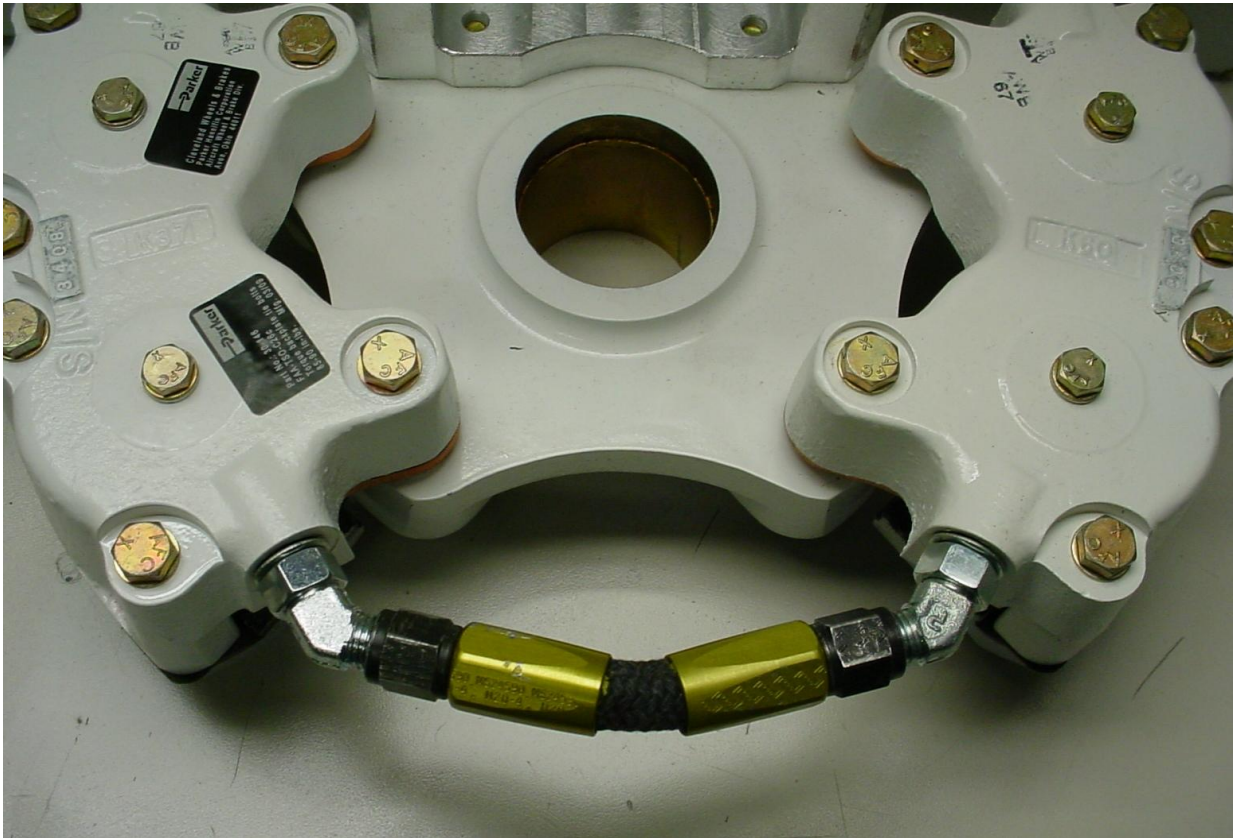


Figure 1  
30-146 Brake Assembly - Interconnect Hose Installation  
Top View

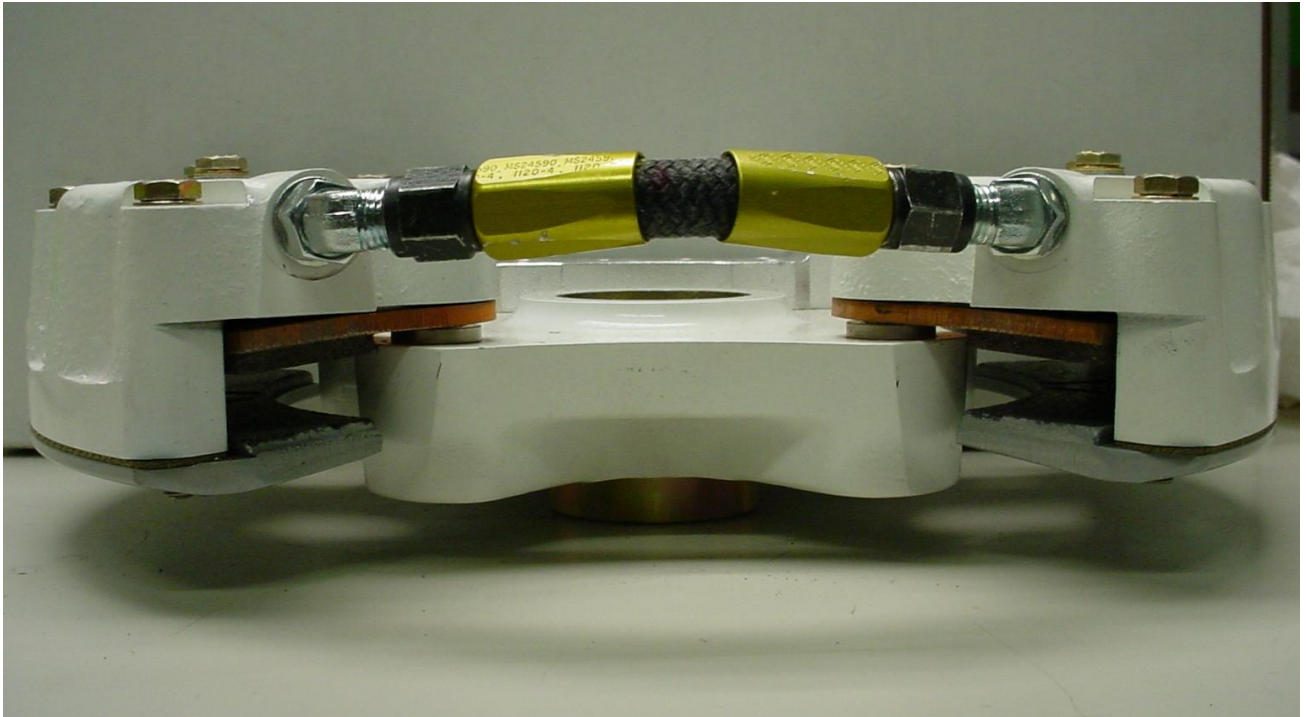


Figure 2  
30-146 Brake Assembly - Interconnect Hose Installation  
End View Showing Fitting Angle and Hose Arch

## MATERIALS

**REQUIRED:** Service kit 199-267 includes components to upgrade one (1) brake assembly. Four (4) kits are required per aircraft. If performing a complete overhaul, order additional parts separately.

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
207-07600	Hose Assy	1
104-04700	Fitting	2
PRM93 (This Document)	30-146 CYLINDER INTERCONNECT HOSE INSTALLATION	1
PRM14A	METALLIC BRAKE LINING CONDITIONING PROCEDURE	1
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