

# Cleveland

Wheels & Brakes

## Parker Hannifin Corporation

Aircraft Wheel & Brake  
1160 Center Road, P.O. Box 158  
Avon, Ohio 44011 USA  
1-800-BRAKING (272-5464)  
216-937-1272 • FAX 216-937-5409

# PRODUCT REFERENCE MEMO

## MAIN LANDING GEAR BRAKE FREEZE-UP

**EFFECTIVITY:** Beech 99, 100 & 200 series, and F90 - those currently equipped with Cleveland Wheels & Brakes installed per Kit 199-110

**NOTE:** Attach this PRM to existing 199-110 Kit paperwork in aircraft.

**DISCUSSION:** Field reports indicate that Cleveland Wheels and Brakes on aircraft models listed can "freeze-up" during operation in certain cold weather conditions. While taxiing, slush and snow can become wedged in and around the brake and disc/lining surfaces. Subsequent brake applications followed by exposure to extreme cold temperatures causes the snow to melt and then re-freeze to hard ice.

This condition can cause brake lock-up on the ramp, or in flight, prior to landing. The latter is the most serious condition, resulting in possible tire skid damage and loss of control while landing.

**RECOMMENDATION:** Previous to November, 1988, Cleveland Conversion Kit 199-110 called for rendering the existing Beech Brake De-ice System inoperative if so equipped. Kits shipped after November 1, 1988 require use of the Cleveland Hot Air Manifold Kit P/N 199-168 if the aircraft is equipped with the Beech De-ice System. Aircraft converted previous to November, 1988 are advised, at the owner's discretion, to restore the Beech Brake De-ice System to an operational condition, by installation of Kit 199-168.