

**Service Letter**

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RASL-009	6/01/2021	-	-

**Subject:** Inspection of RAPCO Inc. Brake Disc PN. RA164-02504 on specific aircraft.

**Applicability:** This Service Letter is applicable to Brake Disc PN. RA164-02504 an FAA-PMA approved part manufactured by Rapco, Inc. when installed on the following aircraft equipped with Cleveland 40-406 series main wheel assemblies and 30-233 series brake assemblies: Cirrus SR-22 aircraft, Columbia LC41-550FG aircraft.

**Purpose:** The purpose of this brake disc inspection is to check for fractures or cracks located on the inside or outside of the circumference of the cup section just above the radius of the three-hole mounting flange.

**Discussion:** The brake disc PN. RA164-02504 has long been used in several other applications without reports of cracking. Particular aircraft listed in the application section of this Service Letter have had other reports of various heat related brake system issues. These aircraft utilize a swivel caster nose wheel, therefore differential braking is often used for directional control while taxiing. If the operator tends to ride the brakes, especially at excessive RPM settings, the brake system can over-temp. The tightly enclosed wheel fairings compound the problem by restricting air flow for cooling resulting in damage to the brake system.

When installing brake discs, it is important to verify that the mounting surfaces between the brake disc and wheel are clean and have full contact with each other before tightening the mounting bolts. Also assure that there is clearance between the wheel and cup portion of the brake disc.

Improper operation, installation, or inspection of brake system components could lead to brake failure, possibly resulting in property damage, injury, and or loss of life.

**Inspection Compliance:** The inspection procedure listed below should be accomplished if any of the following conditions occur:

1. The temperature indicator stickers, if present, indicate that the brake assembly has been over-temped.
2. The Brake Temp Warning annunciator, if present, alert occurs.
3. If any operator knows or suspects that the brake system has been used excessively for steering or has been subjected to over-heating. Excessive heat conditions can also be caused by rejected takeoffs (RTOs), continuous brake pressure (riding the brakes, excessive taxi speeds, brake discs below minimum wear, etc.).
4. Anytime the brake disc is discolored or warped. In conjunction with every oil change (50 hours – SR22) or as prescribed by the aircraft maintenance manuals.

**Procedure for installs with temperature stickers:**

1. If the temperature indicator sticker has turned to black in color the brake discs need to be inspected for damage due to an over-temped condition.
2. Remove the wheel pant(s) and brake disc(s) if needed to check all surfaces for fracture(s).
3. If fracture(s) are identified, the brake disc(s) must be replaced prior to operation.

**Procedure for installs with Over-Heating experience:**

1. Remove the wheel pant(s) and brake disc(s) if needed to check all the surfaces for fracture(s).
2. If fracture(s) are identified, the brake disc(s) must be replaced prior to operation.