

United States of America
Department of Transportation -- Federal Aviation Administration
Supplemental Type Certificate
Number SE25WE

This certificate issued to RAYJAY Parts LLC
10 Harbor Island Drive
Key Largo, Florida 33037

certifies that the change in the type design for the following product with the limitations and conditions therefore as specified hereon meets the airworthiness requirements of Part 13 of the Civil Air Regulations.

Original Product - -Type Certificate Number E-273 and 3E1
Make : Continental-Teledyne
Model : O-470-A, -J, -K, -L, -R, G-CI, and IO-470-C, IO-470-J, and -K

Description of Type Design Change: Installation of two (2) Roto-Master Turbochargers Model 3DT5FF10J2, P/N 600572-00 (formerly Rajay Model 315F10, P/N RJ0080-102) on Continental-Teledyne engine models listed above in accordance with FAA sealed Roto-Master (formerly Rajay) Drawing List RJ1100, dated March 1, 1965, and Revision D, dated January 25, 1979 or later FAA approved revision.

This STC establishes the eligibility of the engines listed for operation with the Roto-Master turbochargers in accordance with the engine operation limitations specified.

Limitations and Conditions: This approval should not be extended to other specific engines of this model on which other previously approved modifications are incorporated unless it is determined that the interrelationship between this change and any of those others previously approved modifications will introduce no adverse effect upon the airworthiness of that engine. This approval covers engine turbocharger compatibility only. A copy of this STC must be included in the permanent records of each engine modified in accordance with this STC. See page 3 for engine operation limitations.

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 : Feb. 2, 1965

Date reissued : . : Jan. 14, 1969; Feb. 10, 1982;
Oct. 30, 1987; Sept. 22, 1995;
Nov. 14, 2003; June 26, 2006

Date of issuance : August 11, 1965

Date amended : 9-30-66; 7-30-68; 8-23-68;
11-8-71; 2-6-79; 7-15-83



By direction of the Administrator

(Signature)
Melvin D. Taylor, Manager
Atlanta Aircraft Certification Office

(Title)

Any alteration of this certificate is punishable by a fine of not exceeding \$1,000, or imprisonment not exceeding 3 years, or both.

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(Continuation Sheet)
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ENGINE OPERATING LIMITATIONS

Where applicable, the following engine limitations supersede those specified on Engine Type Certificate Data Sheet E-273 and 3E1 as applicable:

Engine Speed (Turbocharged)

| | Manifold Pressure | Engine Speed |
|------------|-------------------|---|
| Takeoff | 28.5" Hg.A | - 2625 RPM (5 minutes)(all models except O-470-J) |
| | 28.0" Hg.A | - 2550 RPM (5 minutes)(O-470-J only) |
| Max. Cont. | 27.0" Hg.A | - 2500 RPM |

- No fuel mixture leaning allowed at and above 75% of takeoff power.

NOTE To extend the maximum continuous power of the engine throughout the altitude envelope (Sea Level to 25,000 feet), an engine fuel boost pump may be required. This boost pump must be capable of delivering 100% of fuel flow required to produce maximum continuous power of the engine and within the pressure limits at the inlet to the engine driven fuel pump specified in the engine data sheets.

Fuel: Minimum grade Aviation gasoline 100/130

Altitude: Maximum operating altitude - 25,000 MSL (Density)

ENGINE AND TURBOCHARGER OPERATION:

- Do not operate the turbochargers unless the throttle is wide open.
- When increasing power, fully open the throttle, then slowly close the wastegate until the desired manifold pressure is obtained.
- When decreasing power, fully open wastegate, then close throttle.

CAUTION: During turbocharger mode of operation at high altitude, selection of idle power by closing the throttle will result in unstable engine operating and/or power loss. Appropriate engine operation procedures or system design to prevent this must be established as part of the aircraft certification.