

FEDERAL AVIATION AGENCY

FORM APPROVED, BUDGET BUREAU NO. 04-R015

SUPPLEMENTAL TYPE CERTIFICATE

INSTRUCTIONS - SUBMIT IN TRIPLICATE TO LOCAL FAA FLIGHT STANDARDS INSPECTOR. COPY WILL BE RETURNED TO APPLICANT UPON ISSUANCE

1. NAME AND ADDRESS OF APPLICANT

Jack A. Pemberton  
Box 2398 Airport Station  
Oakland 14, California

2. SUPPLEMENTAL TYPE CERTIFICATE APPLIED FOR:

AIRCRAFT     ENGINE     PROPELLER

ORIGINAL MODEL DESIGNATION  
Boeing E75NI N5051V, S/N 75-8798

NEW MODEL DESIGNATION (If desired)  
None

3. DESCRIPTION OF CHANGE

Installation of Pratt & Whitney R985-AN-3 engine, Hamilton Standard 2D-30-227/6101A-13 propeller and modified fuel and oil systems in accordance with Serv-Aero Engineering, Inc. report dated October 12, 1964.

LIMITATION OF APPLICABILITY. Data not suitable for reproduction of installation in other aircraft; therefore, it is satisfactory for Boeing E75NI, N5051V, Serial 75-8798 only. No additional modifications of this type are to be approved solely by reference to this Supplemental Type Certificate or to the data submitted therefor.

Limitations: See reverse side.

Certification Basis: CAR-4a

a. WILL DATA BE AVAILABLE FOR SALE OR RELEASE TO OTHER PERSONS?     YES     NO

b. WILL PARTS BE MANUFACTURED FOR SALE (Ref. CAR 1.55)?     YES     NO

5. SIGNATURE AND TITLE OF APPLICANT

March 24, 1964

DATE OF APPLICATION

*Flloyd D. Perry*  
SIGNATURE

Agent

TITLE

6. To be Completed by FAA

NATURE AND LOCATION OF DATA

Serv-Aero Engineering, Inc. report dated October 12, 1964  
Serv-Aero Engineering, Inc. Drawings SA-PB-1, 1060 and 1019

ORIGINAL TYPE CERTIFICATE NO.

A-743

SUPPLEMENTAL TYPE CERTIFICATE NO.

SA808WE

DATE OF APPROVAL

October 15, 1964

FAA APPROVAL

Original signed by  
J.A. KRUEGER

Charles R. Hawks

SIGNATURE

Chief, Aircraft Engineering Division

TITLE

## OPERATIONS LIMITATIONS

**ENGINE:** Pratt & Whitney R-985-AN-3  
**ENGINE LIMITS:** Take-off power(1 minute), 450H.P. @  
2300 RPM with 37.5" Hg. @ sea level  
Maximum Continuous Power:  
310 H.P. @ 1950 RPM with 32.0" Hg. @  
sea level  
310 H.P. @ 1950 RPM with 29.4" Hg. @ 6800 ft.  
Straightline variation of M.P. with  
altitude between points given.  
**FUEL:** 80/87 minimum octane aviation gasoline  
**PROPELLER:** Hamilton Standard 2D-30-227/6101A-13  
Hub assembly: 2D30-227  
Blade assembly: 6101A-13  
Diameter:  
Maximum: 107 inches  
Minimum: 107 inches  
Pitch setting @ 42" Station:  
Low Pitch: 12.5°  
High Pitch: 16.0°

**POWER PLANT INSTRUMENTS:** Tachometer: 2300 RPM (Red Line)  
Manifold Pressure Gage: 37.5" Hg. (Red Line)  
Oil Temperature: 200°F (Red Line)  
Oil Pressure:  
Minimum: 50 psi (Red Line)  
Maximum: 100 psi (Red Line)  
Green arc between 50 and 100 psi  
Fuel Pressure Gage:  
Minimum: 12.0 psi (Red Line)  
Maximum: 26.0 psi (Red Line)  
Green arc between 12 and 26 psi  
Cylinder Head temperature: 550°F (Red Line)  
**AIRSPEED LIMITS:** Level Flight or Climb - 125 MPH (Tias)  
Glide or Dive - 150 MPH (TIAS)  
(-2.1) to (+4.0)

**C. G. RANGE:**  
**MAXIMUM WEIGHT:** 3200 pounds  
**FUEL CAPACITY:** 51.0 Gallons (Station -5.0)(Includes 5  
gallons unusable fuel this same station)  
**OIL CAPACITY:** 8.0 Gallons (Station + 79.0)

**CONTROL SURFACE MOVEMENTS:** Elevator UP - 28°  
DOWN - 22°

**PLACARDS:** A. THE FOLLOWING PLACARDS ARE REQUIRED TO BE IN FULL VIEW OF  
THE PILOT:

1. "INTENTIONAL SPINS PROHIBITED"
2. "SOLO FROM REAR SEAT ONLY"
3. "TOTAL WEIGHT OF PILOT, PASSENGER, FUEL AND OIL  
NOT TO EXCEED 657 pounds"
4. "LIMIT INVERTED FLIGHT TO 10 SECONDS"
5. "MAXIMUM CONTINUOUS HORSEPOWER NOT TO EXCEED  
1950 RPM @ 32.0" HG."

B. AT THE FUEL FULLER NECK: "FUEL CAPACITY 51 GALLONS,  
USABLE FUEL 46 GALLONS, MINIMUM 80/87 OCTANE"

C. AT THE OIL FILLER NECK: "OIL CAPACITY 8 GALLONS"

D. AT THE AUXILLIARY FUEL PUMP AND GENERATOR FIELD  
COIL SWITCHES:  
"BOTH MUST BE ON -  
-AUXILLIARY FUEL PUMP-  
-GENERATOR FIELD"

A COPY OF THESE LIMITATIONS SHALL BE CARRIED IN THE AIRCRAFT AT ALL TIMES.