PERFORMANCE AND SPECIFICATIONS

MAXIMUM WEIGHT:
- Ramp . . . . . 6785 Pounds
- Takeoff . . . . . 6750 Pounds
- Landing . . . . . 6750 Pounds
- Zero Fuel . . . . . 6515 Pounds

*SPEED, BEST POWER MIXTURE:
- Maximum - 20,000 Feet . . . . . 239 KTAS
- Maximum Recommended Cruise
  - 77.5% Power at 10,000 Feet . . . . . 196 KTAS
  - 77.5% Power at 24,500 Feet . . . . . 225 KTAS

*RANGE, RECOMMENDED LEAN MIXTURE:
- Maximum Recommended Cruise
  - 77.5% Power at 10,000 Feet . . . . . 428 Nautical Miles,
    (600 Pounds Usable Fuel) 2.27 Hours and 194 KTAS
  - 77.5% Power at 10,000 Feet . . . . . 707 Nautical Miles,
    (900 Pounds Usable Fuel) 3.70 Hours and 194 KTAS
  - 77.5% Power at 10,000 Feet . . . . . 998 Nautical Miles
    (1212 Pounds Usable Fuel) 5.19 Hours and 195 KTAS
  - 77.5% Power at 24,500 Feet . . . . . 460 Nautical Miles,
    (600 Pounds Usable Fuel) 2.26 Hours and 223 KTAS
  - 77.5% Power at 24,500 Feet . . . . . 782 Nautical Miles,
    (900 Pounds Usable Fuel) 3.69 Hours and 224 KTAS
  - 77.5% Power at 24,500 Feet . . . . . 1117 Nautical Miles,
    (1212 Pounds Usable Fuel) 5.17 Hours and 225 KTAS
- Maximum Range
  - 10,000 Feet (600 Pounds Usable Fuel) . . . . . 522 Nautical Miles,
    3.53 Hours and 147 KTAS
  - 10,000 Feet (900 Pounds Usable Fuel) . . . . . 886 Nautical Miles,
    6.06 Hours and 145 KTAS
  - 10,000 Feet (1212 Pounds Usable Fuel) . . . . . 1279 Nautical Miles,
    8.87 Hours and 144 KTAS
  - 25,000 Feet (600 Pounds Usable Fuel) . . . . . 496 Nautical Miles,
    2.68 Hours and 192 KTAS
  - 25,000 Feet (900 Pounds Usable Fuel) . . . . . 866 Nautical Miles,
    4.65 Hours and 190 KTAS
  - 25,000 Feet (1212 Pounds Usable Fuel) . . . . . 1271 Nautical Miles,
    6.92 Hours and 185 KTAS

RATE-OF-CLIMB AT SEA LEVEL:
- All Engines . . . . . 1580 Feet Per Minute
- One Engine Inoperative . . . . . 290 Feet Per Minute

SERVICE CEILING:
- All Engines . . . . . 31,350 Feet
- One Engine Inoperative . . . . . 19,850 Feet

TAKEOFF PERFORMANCE: (98 KIAS, 0° Wing Flaps And 6750 Pounds Weight)
- Ground Roll . . . . . 2185 Feet
- Total Distance Over 50-Foot Obstacle . . . . . 2595 Feet

LANDING PERFORMANCE: (94 KIAS, 45° Wing Flaps And 6750 Pounds Weight)
- Ground Roll . . . . . 1013 Feet
- Total Distance (Over 50-Foot Obstacle) . . . . . 2393 Feet

STANDARD EMPTY WEIGHTS. (Approximate)
- 414 Chancellor . . . . . 4357 Pounds
- 414 Chancellor II . . . . . 4519 Pounds
- 414 Chancellor III . . . . . 4763 Pounds

BAGGAGE ALLOWANCE: . . . . . 1500 Pounds
WING LOADING: . . . . . 29.89 Pounds Per Square Foot
POWER LOADING: . . . . . 10.89 Pounds Per Horsepower
FUEL CAPACITY: (Total)
- Standard (202 Gallons Usable) . . . . . 213.4 Gallons

OIL CAPACITY: (Total) . . . . . 26 Quarts
ENGINES:
- Continental Six-Cylinder, Turbocharged, Fuel-Injected Engines TSIO-520-N
  310 Rated Horsepower At 2700 Propeller RPM And 38.0 Inches Hg.
  Manifold Pressure To 20,000 Feet

PROPELLERS:
- Constant Speed, Full Feathering, Three-Bladed 6'4.5" Diameter 0850334-24

NOTE: Range data includes allowances for start, taxi, takeoff, climb, descent and 45-minute reserve at 45% power.

*Speeds based on Estimated Mid-Cruise Weight.

ENGINE OVERSPEED

Should an overspeed condition occur, the pilot should reduce airspeed as quickly as possible by closing both throttles. On reaching an airspeed below 120 KIAS and above the one engine inoperative best rate-of-climb speed (Blue Radial), set the propeller control on the overspeeding engine for feather. If propeller will not feather, the power on the normally operating engine should be advanced to maximum and the power on the overspeeding engine should be advanced to 50 RPM below the maximum allowable RPM (Red Line). Maintain the one engine inoperative best rate-of-climb speed (Blue Radial) and land as soon as practical. This will provide more than zero thrust at altitudes up to approximately 10,000 feet. During landing, the application of partial throttle on the malfunctioning engine (within limits of the tachometer red line) will minimize asymmetrical thrust.

ENGINE FAILURE DURING FLIGHT (Speed Above Air Minimum Control Speed)

1. Inoperative Engine - DETERMINE. Idle engine same side as idle foot.
2. Operative Engine - ADJUST as required.

Before Securing Inoperative Engine:

3. Fuel Flow - CHECK. If deficient, position auxiliary fuel pump switch to ON.
4. Fuel Selectors - MAIN TANKS (Feel For Detent).
5. Fuel Quantity - CHECK. Switch to opposite MAIN TANK if necessary.
6. Oil Pressure and Oil Temperature - CHECK. Shutdown engine if oil pressure is low.
7. Magneto Switches - CHECK ON.
8. Mixture - ADJUST. Lean until manifold pressure begins to increase, then enrichen as power increases.

If Engine Does Not Start, Secure As Follows:

9. Inoperative Engine - SECURE.
   a. Throttle - CLOSE.
   b. Propeller - FEATHER.
   c. Mixture - IDLE CUT-OFF.
   d. Fuel Selector - OFF (Feel For Detent).
   e. Auxiliary Fuel Pump - OFF.
   f. Magneto Switches - OFF.
   g. Propeller Synchrophaser - OFF (Optional System).
   h. Alternator Switch - OFF.
   i. Cowl Flap - CLOSE.

10. Operative Engine - ADJUST.
    a. Power - AS REQUIRED.
    b. Mixture - ADJUST for power.
    c. Fuel Selector - AS REQUIRED (Feel For Detent).
    d. Auxiliary Fuel Pump - ON.
    e. Cowl Flap - AS REQUIRED.
11. Trim Tabs - ADJUST 5° bank toward operative engine with approximately 1/2 ball slip indicated on the turn and bank indicator.
12. Electrical Load - DECREASE to minimum required.
13. As Soon As Practical - LAND.

NOTE

Schedule fuel use such that an adequate amount of fuel is available in the operative engine main tank for landing. Crossfeed as required to maintain lateral balance within 120 pounds per side. When crossfeeding, maintain level flight, maintain altitude greater than 1000 feet AGL and position inoperative engine auxiliary fuel pump to LOW.

ENGINE FAILURE DURING FLIGHT (Speed Below Air Minimum Control Speed)

1. Rudder - APPLY towards operative engine.
2. Power - REDUCE to stop turn.
3. Pitch Attitude - LOWER NOSE to accelerate above air minimum control speed.
4. Inoperative Engine Propeller - FEATHER.
5. Operative Engine - INCREASE POWER as airspeed increases above air minimum control speed.
6. Inoperative Engine - SECURE.
7. Trim Tabs - ADJUST 5° bank toward operative engine with approximately 1/2 ball slip indicated on the turn and bank indicator.
8. Operative Engine Cowl Flap - AS REQUIRED.

ENGINE INOPERATIVE LANDING

1. Fuel Selector - MAIN TANK (Feel For Detent).
2. Auxiliary Fuel Pump - ON (Operative Engine).
3. Alternate Air Control - IN.
4. Mixture - FULL RICH or lean as required for smooth operation.
5. Propeller Synchrophaser - OFF (Optional System).
6. Propeller - FULL FORWARD.
7. Approach at 108 KIAS with excessive altitude.
8. Landing Gear - DOWN within gliding distance of field.
9. Wing Flaps - DOWN when landing is assured.
10. Decrease speed below 94 KIAS only if landing is assured.
11. Air Minimum Control Speed - 79 KIAS.