

SECTION 1

GENERAL

1.1 INTRODUCTION

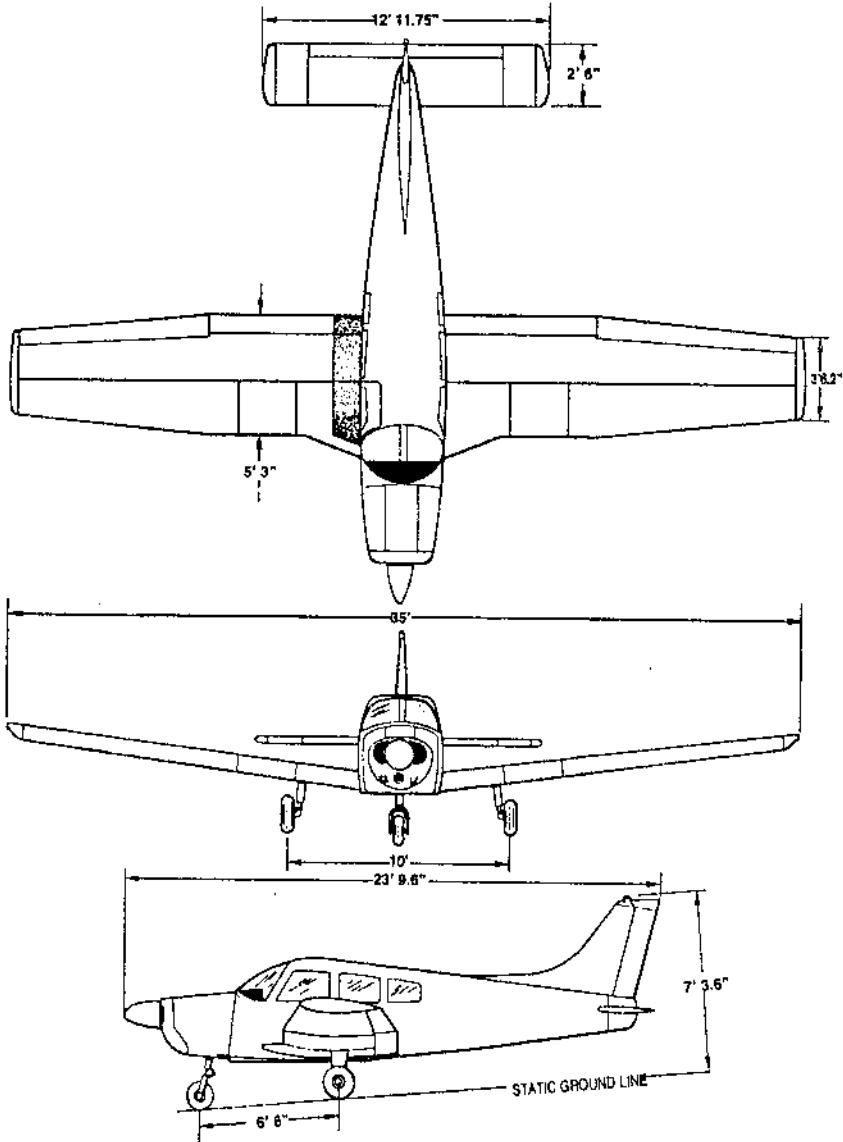
This Pilot's Operating Handbook is designed for maximum utilization as an operating guide for the pilot. It includes the material required to be furnished to the pilot by the FAR/CAR. It also contains supplemental data supplied by the airplane manufacturer.

This handbook is not designed as a substitute for adequate and competent flight instruction, knowledge of current airworthiness directives, applicable federal air regulations or advisory circulars. It is not intended to be a guide for basic flight instruction or a training manual and should not be used for operational purposes unless kept in a current status.

Assurance that the airplane is in an airworthy condition is the responsibility of the owner. The pilot in command is responsible for determining that the airplane is safe for flight. The pilot is also responsible for remaining within the operating limitations as outlined by instrument markings, placards, and this handbook.

Although the arrangement of this handbook is intended to increase its in-flight capabilities, it should not be used solely as an occasional operating reference. The pilot should study the entire handbook to familiarize himself with the limitations, performance, procedures and operational handling characteristics of the airplane before flight.

The handbook has been divided into numbered (arabic) sections, each provided with a finger-tip tab divider for quick reference. The limitations and emergency procedures have been placed ahead of the normal procedures, performance and other sections to provide easier access to information that may be required in flight. The Emergency Procedures Section has been furnished with a red tab divider to present an instant reference to the section. Provisions for expansion of the handbook have been made by the deliberate omission of certain paragraph numbers, figure numbers, item numbers and pages noted as being intentionally left blank.



THREE VIEW

Figure 1-1

1.3 ENGINES

(a) Number of Engines	1
(b) Engine Manufacturer	Lycoming
(c) Engine Model Number	O-320-D3G
(d) Rated Horsepower	160
(e) Rated Speed (rpm)	2700
(f) Bore (inches)	5.125
(g) Stroke (inches)	3.875
(h) Displacement (cubic inches)	319.8
(i) Compression Ratio	8.5:1
(j) Engine Type	Four Cylinder, Direct Drive, Horizontally Opposed, Air Cooled

1.5 PROPELLERS

(a) Number of Propellers	1
(b) Propeller Manufacturer	Sensenich
(c) Model	74DM6-0-60
(d) Number of Blades	2
(e) Propeller Diameter (inches)	
(1) Maximum	74
(2) Minimum	72
(f) Propeller Type	Fixed Pitch

1.7 FUEL

AVGAS ONLY

(a) Fuel Capacity (U.S. gal) (total)	50
(b) Usable Fuel (U.S. gal) (total)	48
(c) Fuel	
(1) Minimum Octane	100 Green or 100LL Blue Aviation Grade
(2) Alternate Fuel	Refer to Fuel Requirements, Section 8 - Handling, Servicing and Maintenance.

1.9 OIL

- | | | |
|---|-----------|---|
| (a) Oil Capacity (U.S. quarts) | | 8 |
| (b) Oil Specification | | Refer to latest issue
of Lycoming Service
Instruction 1014. |
| (c) Oil Viscosity per Average Ambient
Temp. for Starting | | |
| | Single | Multi |
| (1) Above 60°F | S.A.E. 50 | S.A.E. 40 or 50 |
| (2) 30°F to 90°F | S.A.E. 40 | S.A.E. 40 |
| (3) 0°F to 70°F | S.A.E. 30 | S.A.E. 40 or
20W-30 |
| (4) Below 10°F | S.A.E. 20 | S.A.E. 20W-30 |

1.11 MAXIMUM WEIGHTS

	Normal	Utility
(a) Maximum Takeoff Weight	2202 lbs / 999 kg	2020 lbs / 916 kg
(b) Maximum Landing Weight (lbs)	2202 lbs / 999 kg	2020 lbs / 916 kg
(c) Maximum Weight in Baggage Compartment (lbs / kg)	200 lbs / 90.7 kg	0

1.13 STANDARD AIRPLANE WEIGHTS

Refer to Figure 6-5 for the Standard Empty Weight and the Useful Load.

1.15 BAGGAGE SPACE

- | | |
|-------------------------------------|----|
| (a) Compartment Volume (cubic feet) | 24 |
|-------------------------------------|----|

1.17 SPECIFIC LOADINGS

- | | |
|----------------------------------|------|
| (a) Wing Loading (lbs per sq ft) | 13.0 |
| (b) Power Loading (lbs per hp) | 13.8 |