GRUMMAN AMERICAN

1975

Model AA-5

and Traveler

OWNER'S MANUAL

Owner _____

Registration No. _____

PERFORMANCE/SPECIFICATIONS: MODEL AA-5

GROSS WEIGHT . . . . . 2200 lbs.

SPEED: * Top Speed at Sea Level . . . . . 157 m.p.h.
Cruise, 75% Power at 8500 ft. . . . . 147 m.p.h.
Cruise, 65% Power at 8500 ft. . . . . 136 m.p.h.

RANGE: Cruise, 75% Power at 8500 ft. . . . . 638 mi.
37 Gallons, No Reserve . . . . . 4.3 hrs.
Cruise, 65% Power at 8500 ft. . . . . 674 mi.
37 Gallons, No Reserve . . . . . 5.0 hrs.
Optimum Range at 10,000 ft. . . . . 680 mi.
37 Gallons, No Reserve . . . . . 5.0 hrs.

RATE OF CLIMB AT SEA LEVEL . . . . . 660 f.p.m.

SERVICE CEILING . . . . . 12,650 ft.

TAKE OFF: Ground Roll . . . . . 880 ft.
Total Distance Over 50 ft. Obstacle . . . . 1600 ft.

LANDING: Ground Roll . . . . . 380 ft.
Total Distance Over 50 ft. Obstacle . . . . 1100 ft.

WING LOADING . . . . . 15.7 lb./sq. ft.

POWER LOADING . . . . . 14.7 lb./bhp.

BAGGAGE . . . . . 120 lbs.

FUEL CAPACITY: TOTAL . . . . . 38 gal.

OIL CAPACITY: TOTAL . . . . . 8 qts.

PROPELLER: McCAULEY Fixed Pitch (Diameter) . . . 73 in.

ENGINE: LYCOMING
Model 0-320-E2G . . . . . 150 hp. at 2700 r.p.m.

* Equipped with wheel fairings.

SERVICE REQUIREMENTS

FUEL:

Aviation grade . . . . . 80/87 minimum grade
Capacity each tank . . . . . 19 gallons

ENGINE OIL:

Aviation Grade
*Recommended Grade Oil

Average Ambient Air	Mineral Grade	Ashless Dispersant
Above 60°F	SAE 50	SAE 40 or SAE 50
30° to 90°F	SAE 40	SAE 40
0° to 70°F	SAE 30	SAE 40 or SAE 30
Below 10°F	SAE 20	SAE 30

Oil Sump Capacity . . . . . 8 U.S. quarts

Minimum Safe Quantity in Sump . . . . . 2 U.S. quarts

HYDRAULIC FLUID:

MIL-H-5606

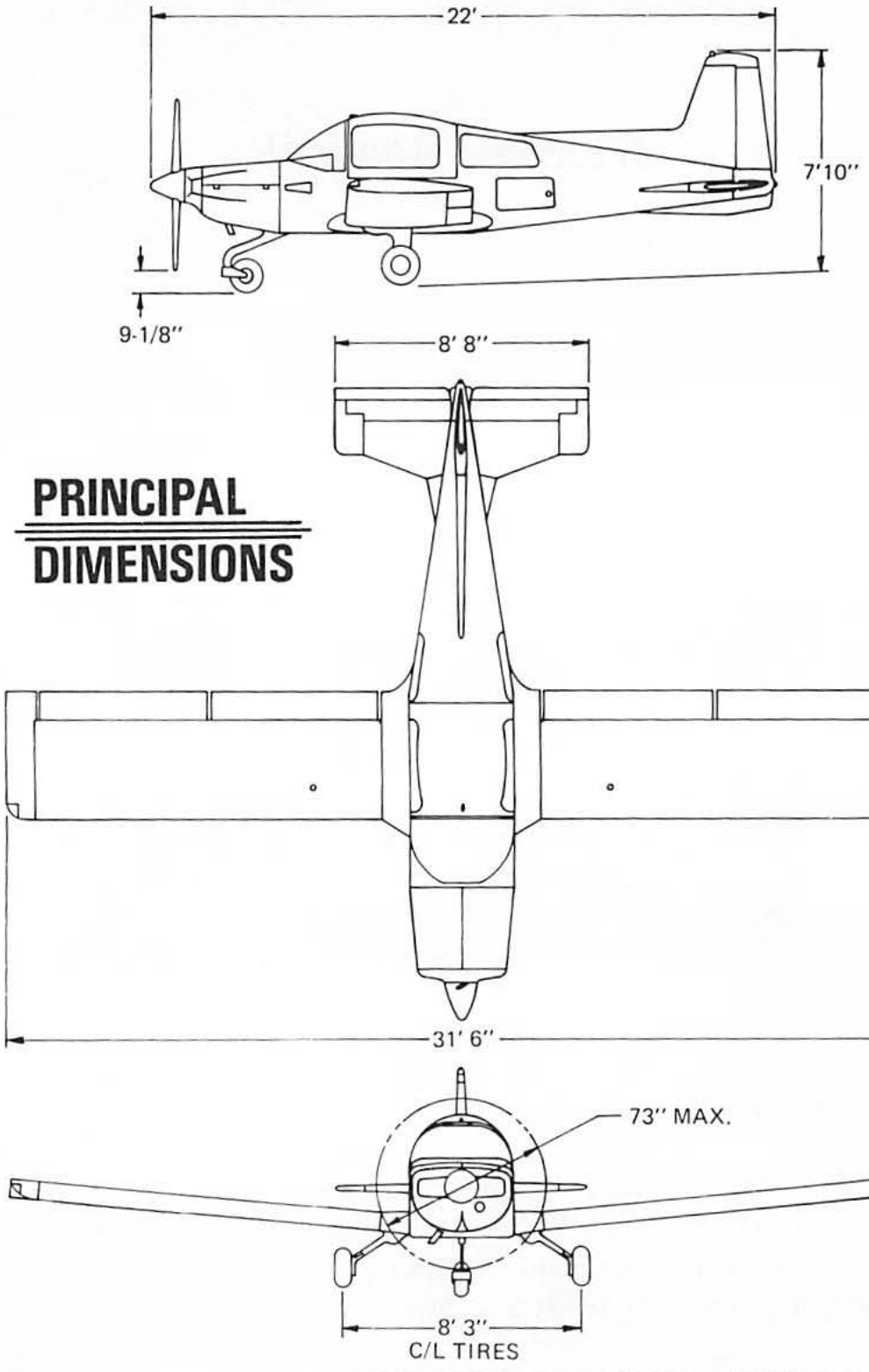
TIRE INFLATION:

Nose Wheel	21 PSI	5.00 x 5 tire
Main Wheels	24 PSI	6.00 x 6 tires

* Refer to latest revision of Lycoming Service Instruction No. 1014.

Fully illustrated Parts Catalogs and Service Manuals are obtainable through authorized Dealers of Grumman American Aviation Corporation or from the Customer Service Department, Cleveland, Ohio.

PRINCIPAL DIMENSIONS



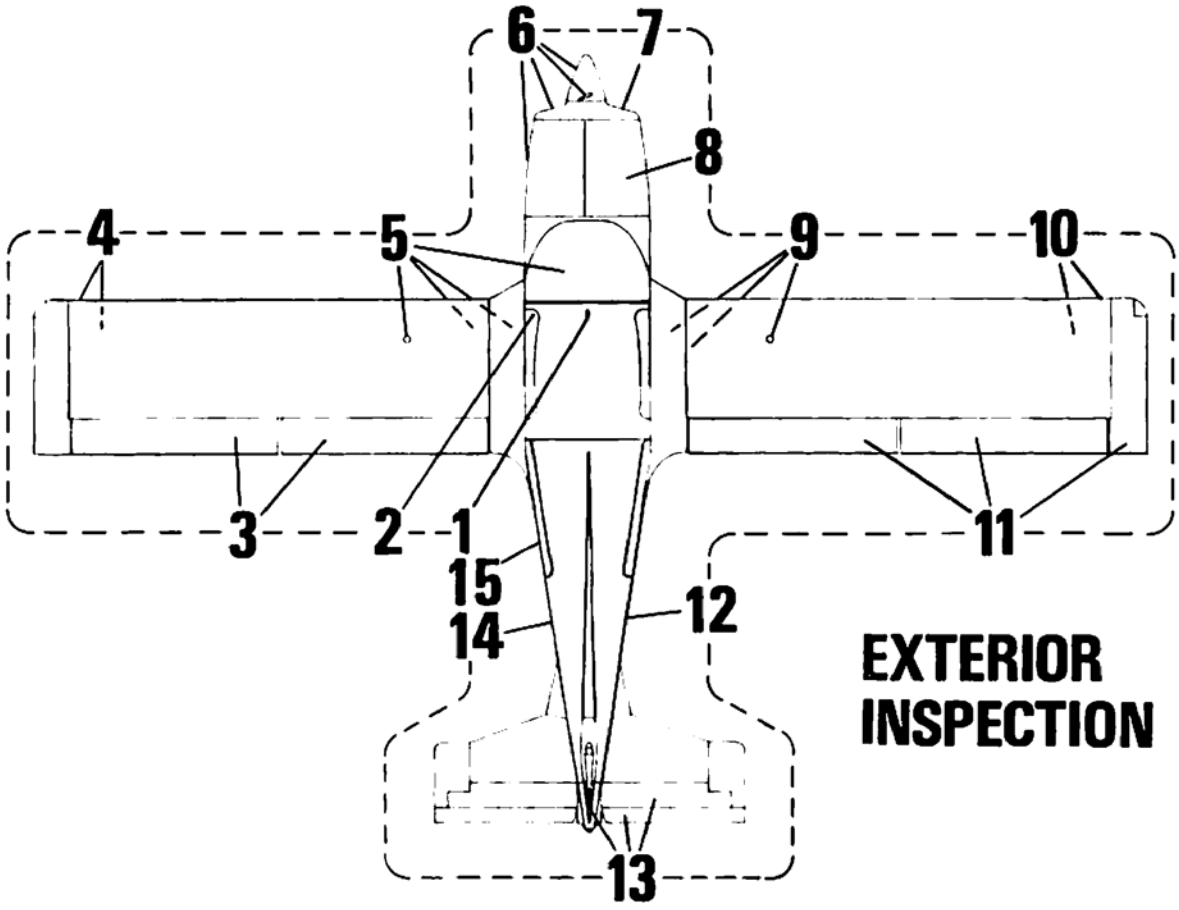


Figure 3

PREFLIGHT

The airplane should be given a thorough visual inspection prior to each flight. This procedure is recommended as shown on Figure 3.

1. Unlock and open canopy. (Latch handle turns counterclockwise to open)
2. CHECK: Ignition switch OFF, Master switch OFF, mixture control in FULL AFT, IDLE CUT-OFF position. Remove control lock.
3. Check for flap security.
   Check ailerons for freedom of movement.
4. Check wing surface and tip for damage.
   Remove left wing tie down.
   Inspect pitot opening for foreign particles.
   Inspect fuel tank vent for foreign material.
5. Visually check fuel level and check cap for tight seal.
   Drain sample from the left fuel tank and left sump tank.
   Inspect landing gear and tires for general condition (wear, cuts, abrasions, leaking brakes, tire inflation.)
   Check windshield and canopy for general condition.
   Check fresh air vents for blockage.

CHECK LIST AND OPERATING INSTRUCTIONS

PREFLIGHT (Continued)

6. Check propeller and spinner for cracks, nicks and security.
   Check cowling for damage and security of latches.
   Check landing light for damage.
   Check carburetor air passage for obstructions.

7. Engine baffles and cooling openings free of foreign materials/ obstructions.
   Remove tow bar from nose gear.

8. Check oil level. It is recommended you DO NOT OPERATE ENGINE WITH LESS THAN 4 QUARTS. FILL TO 8 QUARTS MAXIMUM FOR EXTENDED FLIGHT.
   Check nose gear and tire for wear, cuts, abrasions and proper inflation.

9. Inspect landing gear and tire for general condition (wear, cuts, abrasions, leaking brakes, proper inflation.)
   Drain sample from the right fuel tank and right sump tank.
   Visually check fuel level and check cap for tight seal.

10. Inspect fuel tank vent for foreign material.
    Check stall horn vane for freedom of movement.

11. Check wing surface and tip for damage.
    Remove right tie down.
    Check ailerons for freedom of movement.
    Check for flap security.

12. Check static source for foreign particles.

13. Check elevators and rudder for freedom of movement.
    Check trim tabs for security.
    Check tail cone for security.
    Remove tail tie down.

14. Check static source for foreign particles.

15. Check baggage door for security.

NOTE

For night operations: always check instrument, position and landing lights for proper operation prior to starting engine. Always carry a flashlight during night operations.

(Caution: abruptly releasing the switch may cause it to snap through the neutral detent, into the retract position.) To retract flaps, push the switch forward and release it; the flaps retract fully with no further attention, and the flap drive motor shuts off automatically.

ENGINE CONTROLS

The push-pull throttle control, located in the lower center instrument panel, is equipped with a friction lock to prevent creeping (but which can be overridden manually). The mixture control and carburetor heat control, to the right and left of the throttle, respectively, are also of the push-pull design.

FUEL SYSTEM

The AA-5's fuel system (Figure 1) consists of two tanks located just outboard of the wing root fairing, two sump tanks (one in each wing root fairing),independent fuel gauges and a fuel selector valve. The fuel tanks are vented and equipped with two main fuel lines in each tank, located to assure fuel supply in all normal flight attitudes. The flush mounted fuel tank vents are located in the bottom of the outboard wing panels, just forward and inboard from the wing tie downs. A mechanical fuel pump mounted on the engine transfers fuel from the tanks to carburetor.

An auxiliary electric fuel pump supplements the engine-driven pump. Fuel pressure is indicated on a gauge in the engine instrument cluster, located to the right of the radio section of the instrument panel. The electric pump should be turned on if the engine-driven pump fails as noted by a loss of fuel pressure. The electric fuel pump can also be used to provide fuel pressure redundancy during low altitude operation, such as during take-off and landing.

There are four fuel drains on the airplane. One is located in each fuel tank, and one in each sump tank. They can be reached under the front side of the wing at the wing root on each side of the airplane. A drain cup is provided (in the glove box) for draining fuel which should be inspected for water or sediment contamination.

HEATING AND VENTILATION

Cabin heat and defrost air are supplied by a heat exchanger on the engine exhaust system. The supply of warm air for the heater and defroster is controlled by the cabin heater control on the center of the instrument panel.

Fresh air ventilation is provided by adjustable vents located just below the instrument panel, with the air supply being ducted in from inlets in the fuselage. Maximum ventilation can be obtained by sliding

FUEL SYSTEM Schematic – Model AA-5

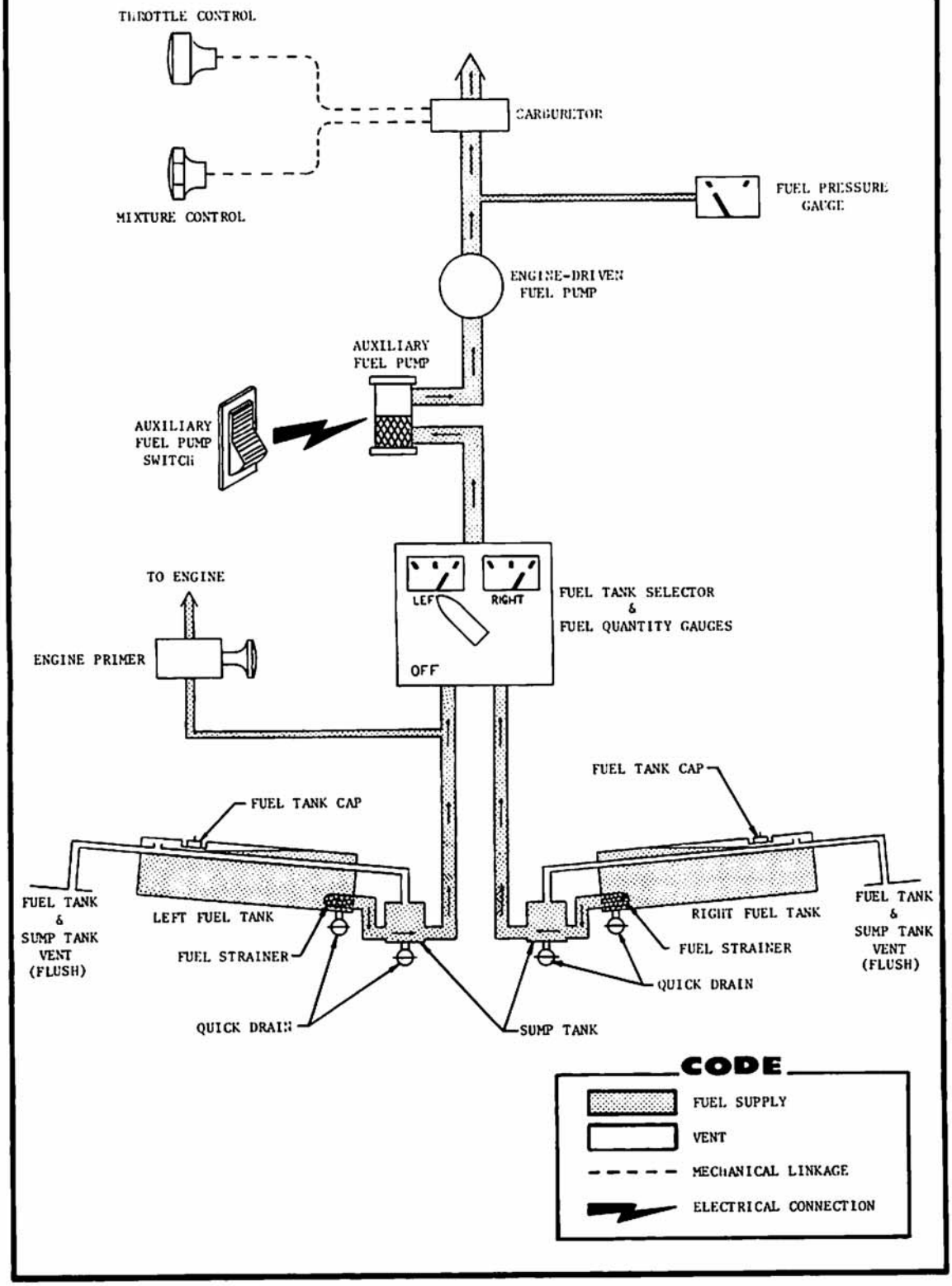


Figure 1