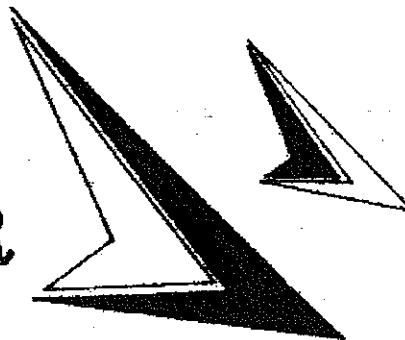


PAWNEE

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Owner's Handbook

PIPER



**Piper Aircraft Corporation, Lock Haven, Pa.
U. S. A.**

SPECIFICATION FEATURES:

POWER PLANT

PA-25-235

PA-25-260 (Fixed Pitch)

PA-25-260 (Constant Speed)

Engine	Lyc. O-540-B2C5
Rated Horsepower	235
Rated Speed RPM	2575
Bore, Inches	5.125
Stroke, Inches	3.875
Displacement (cubic inches)	541.5
Compression Ratio	7.20:1
Dry Weight, Pounds	368
Oil Sump Capacity (quarts)	12
Fuel Aviation (Min. Octane)	80/87

Lyc. O-540-G1A5
260
2700
5.125
4.375
541.5
8.5:1
384
12
100/130

Lyc. O-540-G1A5
260
2700
5.125
4.375
541.5
8.5:1
386
12
100/130

PERFORMANCE

	<u>Clean</u>	<u>Duster</u>	<u>Sprayer</u>	<u>Clean</u>	<u>Duster</u>	<u>Sprayer</u>	<u>Clean</u>	<u>Duster</u>	<u>Sprayer</u>
Take-off Run (ft.)	785	956	800	730	890	740	660	830	680
Take-off Run over 50 ft. barrier	1350	1470	1370	1250	1420	1270	1200	1370	1220
Best Rate of Climb Speed (MPH)	83	80	83	83	83	83	83	83	83
Best Angle of Climb (MPH)		71	73						
Rate of Climb (ft. per min.)	700	500	630	755	555	685	775	575	705
Service Ceiling (ft.)		9000	13,000						
Top Speed (MPH)	124	110	117	128	113	120	128	113	120
Cruising Speed (75% power) (MPH)	114	100	105	118	103	108	118	103	108
Fuel Consumption (75% power) (gph)	14	14	14	14.1	14.1	14.1	14.1	14.1	14.1
Cruising Range (75% power) (mi.)	290	255	270	300	260	275	300	260	275
Stalling Speed at Maximum gross, flap down (MPH)	61	61	61	61	61	61	61	61	61
Stalling Speed as usually landed	46	46	46	46	46	46	46	46	46
	(at 1700 lbs.)	(at 1700 lbs.)	(at 1700 lbs.)	(at 1700 lbs.)	(at 1700 lbs.)	(at 1700 lbs.)	(at 1700 lbs.)	(at 1700 lbs.)	(at 1700 lbs.)
Landing Roll at gross	850	850	850	850	850	850	850	850	850

throttle completely; when engine starts retard throttle to desired idle position and turn on right magneto switch.

When the engine is warm, do not prime before starting.

WARM-UP AND GROUND CHECK

As soon as the engine starts, the oil pressure should be checked. If no pressure is indicated within thirty seconds, stop the engine and determine the trouble.

Warm up the engine at 800 to 1000 RPM for not more than two minutes in warm weather, four minutes in cold weather. The magnetos should be checked at 1800 RPM, the drop not to exceed 125 RPM. The engine is warm enough for take-off when the throttle can be opened without the engine faltering.

If installed, the constant speed prop control should be moved through its complete range to check for proper operation and then placed to increase RPM for take-off.

Carburetor heat should be checked during the warm up to insure the correct operation of the control and the availability of heat if needed.

TAKE-OFF, CLIMB AND LEVEL FLIGHT

The fuselage, forward of the cockpit, was designed to give better visibility. During take-off and in flight the nose appears to have a nose-down attitude. If the nose-down appearance is kept in mind during the operator's first few take-offs, no difficulty should be encountered in obtaining the correct attitude.

If desired, a level flight may be simulated by raising the tail on a tail stand to a level position. With the airplane in this position, the nose attitude as seen from the cockpit is correct for take-off. Because of the nose down appearance, propeller clearance is sometimes questioned and should be observed while the aircraft is in this position to eliminate any doubts of adequate

clearance.

The elevator trim should be set three quarters of its travel nose up for take-off. The mixture should be full rich, and the carburetor heat off. **The flaps should be retracted for take-off at all times.** The best rate of climb speed for the Pawnee sprayer is 83 MPH, while 80 MPH is recommended for the duster.

After take-off hold the best rate of climb speed. In this attitude (normal climb) the nose attitude will appear a little low. Check the airspeed with the nose attitude until the attitude of the airplane has been determined. This is the best climb attitude and raising the nose higher will only decrease the rate of climb.

STALLS

Normal maneuvers in the Pawnee are permitted. A slip, skid, or high rate of roll will cause a slight buffet, however, this should not be interpreted as a stall warning but an indication of unbalanced flight. A slight buffet may also be felt in a steep, abrupt, pull-up but this is similar to the buffet felt in a high rate-of-roll maneuver and should not cause concern.

In any attitude or under any loading condition the stall is preceded by a moderate aerodynamic buffet and a proportional decrease in stick forces. All controls are effective up to and completely through the stall and there is no noticeable tendency to enter a spin after the stall.

With agricultural equipment installed the flaps down stall speed is 61 MPH, flaps up 62 MPH.

CRUISING

The cruising speed with agricultural equipment at gross