

Objectives: Stalls

Upon completion of this lesson, the student will be able to:

- Perform and safely recover from power on (departure), power off (approach) and turning stalls
- Explain the causes of stalls and spins.
- Explain the proper spin recovery technique.

Equipment:

- Chalkboard and/or model to demonstrate stall behavior.

Elements:

1. Ground - Pre-lesson briefing
 - Explain procedure to slow the airplane down.
 - Review stall speeds in various configurations for the airplane to be used.
 - Explain aircraft behavior during stalls using model airplane and/or chalkboard.
 - Review effect of CG location and weight on the stall characteristics of the airplane.
 - Explain the cause of spins. (You can't spin if you don't stall).
 - Explain spin recovery technique for the airplane being used.
2. Flight - Power off stalls.
 - Review procedure to perform the stall and review causes of spins.
 - Explain the need for clearing turns, and the need to select an appropriate altitude (such that the maneuver can be completed above 1,500 AGL) at which to perform the maneuver.
 - Demonstrate and explain the maneuver, in approach configuration.
 - Coach student through the maneuver; Have student bring the plane to the edge of the stall a couple of times first before letting the stall fully develop to increase the comfort level.
 - Announce first indications of oncoming stall.
 - Recovers from the stall with minimum loss of altitude Retracts flaps after accelerating to VY and establishing a positive rate of climb.
3. Flight - Power on stalls and Turning stalls
 - Demonstrate the maneuvers as above.
 - Coach student through the maneuvers as above.

Completion Standards:

This lesson will be completed when the student is able to:

- Perform power on and power off stalls with minimum loss of altitude and while on entry heading (+/-10).

Common Errors:

- Concentrating on instruments in all maneuvers.
- Coordination in all maneuvers.
- Staring over the nose in stall entries.
- Pulling back too hard or not enough in stall entries.
- Not relaxing back pressure or pushing yoke forward to recover from the stall.
- Too abrupt application of power; failure to turn carburetor heat off.
- Trying to use ailerons to correct for wing dropping.

References:

POH For airplane used.

Jeppesen PPM; Pages 3-37 to 3-43

FTH; Pages 143 157

PP-ASEL PTS Area of Operation VIII, Tasks A, B, C, D

Possible Review Questions

VS is the stall speed in a _____ configuration.

VS0 is the stall speed in a _____ configuration.

VS1 is the stall speed in a _____ configuration.

A spin is likely to occur when the airplane is stalled while _____.

Describe the proper recovery procedure from a spin.

Describe the proper recovery procedure from a stall.

When flying at slow airspeeds, the airplane has a tendency to turn to the _____. Why?