



# Update for **Multi-Engine Flying**

The Pilot's Manual Series

ASA-PM-ME  
September 2015

Page Number	Description of change or new text as applicable
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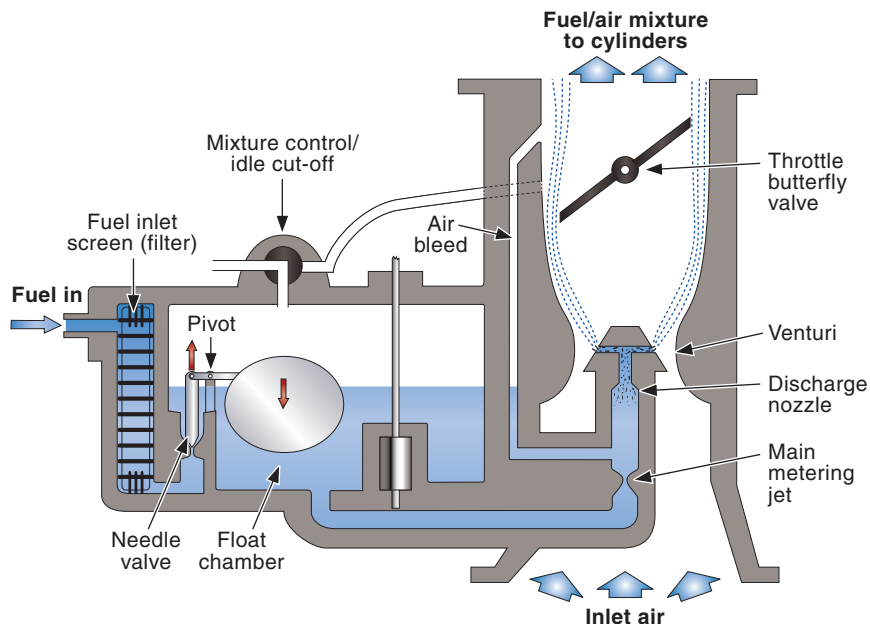
13 *In list item #1 (Intake stroke), first sentence, delete the portion after the semi-colon. Paragraph now reads:*

1. *Intake Stroke:* The piston begins at TDC and moves down the cylinder, drawing a mixture of air and fuel into the cylinder through an opening in the top of the cylinder called the intake valve. Once the piston reaches BDC, the intake valve closes and the intake stroke is complete.

14 *In the first paragraph under the Counter-Rotating Engines subheading, last sentence, change LO-369-A1H6 to LO-360-A1H6. Sentence now reads:*

These two engine models are nearly identical, except for the fact that the LO-360-A1H6 on the right side of the aircraft rotates counterclockwise—the opposite direction of most piston engines (Figure 2-2).

21 *In Figure 2-7, redirect the callout arrow for “Float chamber” to point to the whole chamber instead of to the float itself, as shown below:*



28 *First sentence at the top of the page is revised to read:*

When a hot piston engine is cooled very quickly, the potential exists for some of the metal engine components—primarily the cylinders—to crack.

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38

*Under the subheading Constant Speed Function, first sentence is revised to read:*

The second function of the governor is maintaining a constant propeller speed, which is accomplished automatically.

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38–39

*Under the subheading Constant Speed Function, third paragraph is revised to read:*

In multi-engine aircraft with a constant speed propeller, flyweights are connected to the pilot valve. The flyweights spin at the same speed as the propeller. If the flyweights speed up (beyond the pilot-selected RPM) centrifugal force pushes them outward, moving the pilot valve and allowing oil to return to the engine sump; this moves the propeller blades to a higher blade angle and lower RPM. Conversely, if the flyweights slow down (below the pilot-selected RPM) centripetal force pushes them inward, moving the pilot valve and allowing oil to flow from the governor to the propeller hub. This moves the propeller blades to a lower blade angle, resulting in a higher RPM.