

WARM / HOT START PROCEDURES FOR N736ZN

The Lycoming O-540L3C5D engine in this plane has a tendency to evaporate primed fuel VERY quickly and lead to too-lean conditions that will not allow starting. The turbocharger system emits a great deal of radiant heat long after shut down and this may be the likely culprit. Accordingly, please use these steps to start an engine that is either warm or hot (these are designed to compliment the steps in the Cessna POH for hot starting – please refer to the plane's POH for the full procedure):

1. Always get in the habit of opening the oil access door on the pilot's side of the top cowling whenever you're on the ground and expect to restart within 3 hours. This allows a tremendous amount of heat to escape from the cowling during that period.
2. If you've just shut down and/or have already tried starting without priming, *you will now need to prime the engine to start it*. Pull the priming plunger out SLOWLY and allow the siphoning action to fully fill the priming pump completely. Wait a moment, then push the plunger back in FIRMLY and do a complete priming stroke. Lock the primer.
3. Without delay, pull the throttle FULLY CLOSED and engage the starter. Crank 2-3 seconds, then slowly manipulate the throttle from closed to about ½" open until engine starts.
4. If after 5 seconds of cranking you don't start, you need to re-prime again as the engine has become too lean already. This time do TWO full priming strokes. Repeat steps 2 and 3.
5. If you have attempted this procedure more than 2x, please wait for (20) minutes before attempting to start again. This allows the starter to cool down sufficiently to continue any subsequent starting attempts without causing mechanical failure (and thus extending your visit to that airport)

In most cases, you are too lean to start if the engine does not start using these steps. It is rather difficult to flood the engine but if that happens, you can use the standard procedures for starting a flooded engine (crank momentarily with throttle open and mixture lean – please refer to the POH for the full procedure). Flooding this engine is a very temporary condition that is easily remedied with time and with the flooded start procedure. *Don't be afraid of flooding the engine because if you are too lean, it will never start but if it is flooded, the engine will eventually be at the correct fuel/air ratio as the excess fuel quickly evaporates.*

If you continue to have difficulty starting, please wait another 30+ minutes and this condition will slowly alleviate itself as the engine continues to cool. Eventually, it will start just as a cold engine normally would. Leave the top cowl door open, head to the FBO or café to grab something to eat and you will be rewarded with a much easier starting experience upon your return.