

From: [REDACTED]
To: [REDACTED]
Subject: Re: H-250 Performance
Date: Monday, September 23, 2019 10:23:17 AM

Hello Eric,

It was good to talk to you last week. I have not been able to find any detailed performance specifications for the model H-250 yet.

The H-250 is very similar to the H-295 except for the power plant. From the firewall back, the two airplanes are virtually identical. The main difference is in performance and capabilities. The H-295 uses the GO-480 with a 96" three blade propeller. The H-250 uses an O-540 which is direct drive and a two blade propeller. The key to the Courier's short field capability is the geared engine. The geared engines with large diameter propellers produces significantly more static thrust than a direct drive engine with the smaller diameter propeller.

The other key to the Helio's performance is the wing. It is a NACA 23012 with slats, large flaps, and spoilers (Interceptors) to augment the frise type ailerons for lateral control. The slats and large flaps help make the airplane stall proof however the added lift does come with additional drag especially at high angles of attack. If the airplane is flown at extremely high angles of attack, the drag can be more than the thrust available can overcome. This is more noticeable in the H-250 because of the lower horsepower and static thrust. Obviously, this can be a problem if it is close to the ground since the only way to correct the situation is to lower the nose and let the speed increase.

At a gross weight of 3400 pounds, the H-250 has a take off roll of approximately 420 feet at sea level on a standard day with no wind. The H-295 is about 335 feet. Distance over a 50' barrier is 750 feet for the H-250 vs 610 for the H-295.

Let me know if you have any questions or need anything else.

Best regards,

David