

Iolar - Weight and Balance Check

Ruth Bagnell has given us this very interesting insight into just one aspect of returning Iolar to flight condition.

Aero Inspection International (in conjunction with Planeweighs Ltd) weighed EI-ABI free of charge a week before the test flight. The original weighing report of 1936 was expressed in Qts (quarters) Cwt (hundred weights) and lbs! Since the Dragon is a pre-war, British built aircraft, there were some nuances to its weighing. It was common pre-war practice to express the CG (Centre of Gravity) position as a percentage of Aerodynamic Mean Chord, measurements taken parallel to the wing chord line, rather than inches from the datum. Aircraft were weighed with the aircraft placed tail high, so that the wing chord line was horizontal.

As the Dragon's wing incidence is 3° , the aircraft had to be placed so that the bottom surfaces of the wings were horizontal, or the cabin windows were oriented 3° tail up. At this attitude, a pilot could get familiar with a 'slightly too tail-high' takeoff attitude. The aircraft was weighed on platform scales and the results were published in lbs only.



Ruth Bagnell & John Fields at work. Photo: Stephen Jordan