

# Craftsmans—Corner

## VANE TYPE AIRSPEED INDICATOR

By Chuck Larsen, Designee Director  
Photos by Marian Cavadias

A number of the "low and slow" category homebuilts displayed at fly-ins sport a vane type airspeed indicator in addition to the more conventional instrumentation. A photo, in an EAA publication, of an aircraft with an airspeed indicator of this type always brings inquiries from readers about how to secure or construct one. The most common commercial version of this device is known as the Johnson Air Speed Indicator, which were manufactured by the Johnson Airplane and Supply Company. A design more easily duplicated in the homebuilders shop was produced by the DeHavilland Aircraft Company. This DeHavilland indicator is the basis for the following information.

This photo is a full-size reproduction of the DeHavilland indicator. The mounting of the spring is adjustable so the pre-load and position can be changed to assure the spring doesn't rub on the metal of the spring guide. The spring on the indicator displayed in the EAA Aviation Foundation Museum is pre-loaded  $\frac{1}{2}$  oz. and gives a 40 MPH indication with  $3\frac{1}{2}$  oz. pressure on the plate and a 50 MPH indication with a  $4\frac{1}{2}$  oz. pressure. The dimension of the plate is 3 inches high by  $1\frac{9}{16}$  inches wide. I am sure various combinations of spring deflection and plate size would work equally well, but some pre-load should be maintained so the indicator will return to zero.

The initial calibration can be easily accomplished by holding the indicator out of the air turbulence of a moving vehicle and marking the deflection of the spring based on the vehicle's speedometer indications. You may want to mark only the stall and red line speeds of your plane and indicate speed areas of too slow, just right, and too fast rather than the miles per hour.

No claims are offered for the accuracy of this device, but I'm sure it will generate enough comments and discussions to make it a worthwhile project.

