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[54] **STRUT-MOUNTED DRAG BALANCE**

4,604,906 8/1986 Scarpa 73/861.74

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[57] **ABSTRACT**

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[51] Int. Cl.⁶ **B63B 9/08**

[52] U.S. Cl. **73/147; 73/862.627; 73/170.15**

[58] Field of Search **73/170.15, 170.01, 73/170.02, 170.03, 861.71, 861.72, 861.74, 861.75, 861.76, 147**

A drag balance for measuring drag forces on a model is described which mounts within a hollow region of a streamlined strut. The strut is attached to a carriage for towing the model through a medium. The drag balance has a ground frame attached inside the strut and a balance frame attached to the flat plate at the base of the strut. The ground frame and balance frame are connected by flexures which allow only a small amount of movement of the balance frame and model relative to the ground frame and strut in the towing direction. Strain gages are attached to one or more of the flexures to determine the amount of bending in the flexures and thus obtain a measure of the drag forces exerted on the model. Mounting the drag balance within the streamlined strut minimizes turbulence and allows the drag balance to be connected directly to the model at the base of the strut such that drag forces on the model are accurately determined.

[56] **References Cited**
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10 Claims, 2 Drawing Sheets

