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 Title : DESIGN FEATURES AND STRESS ANALYSIS OF
 A 0.686-SCALE STANDARD DYNAMICS MODEL

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Abstract : A 0.686-scale Standard Dynamics Model incorporating some special features was designed and built at NAL. A brief description of the various design and construction features, load estimations and a detailed stress analysis of the model are presented in the report to provide an idea of the current practice adopted at NAL for the design and construction of wind tunnel models for dynamic stability testing. The model was successfully employed for check-out and validation of a forced-oscillation rig at Mach numbers upto 1.3 and angles of attack upto 20 deg in the NAL 1.2m blowdown tunnel.