STRUCTURE-BORNE NOISE AND VIBRATIONS IN AUTOMOBILES: AN OVERVIEW

S. R. KUMBHAR, S. S. SARAWDE AND BIMLESH KUMAR

Abstract

NVH stands for Noise Vibration and Harshness and is an industry term associated with the treatment of vibration and audible sounds. The acceptability of noise and vibration levels generated by vehicles is one of the important criteria determining the competitiveness of different public or personal transportation modes. Disturbance caused by noise is one of the most important environmental health consequences of the transport vehicles. Over a number of years, investigations in different countries have shown that noise affects different activities and causes a poorer life quality. There is thus a great need to control noise caused by transport. Investigations of the relationship between exposure to originating from different noise sources in the transport vehicles and effects among the exposed population form an important basis for technical measures to limit noise generation and to regulate noise levels. In this paper an attempt has been made to take overview of the different sources of noise & vibration in a vehicle along with special emphasis on structure-borne noise & vibrations.

Keywords: Automobile, airborne noise, structure-borne noise, transmissibility ratio.