Noise Control of Hydraulic Machinery

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Stan Skaistis
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This specialized volume is primarily devoted to noise reduction for pumps and valves. It therefore includes information on both airborne noise, noise propagation in fluids, and structureborne noise. It also includes information on mechanical isolation of motors and pumps and various types of filters that can be used to reduce fluidborne noise.

The treatment is of an engineering nature rather than a theoretical nature, and many examples of noise reduction techniques are included. The chapter on pumping forces and moments describes in practical terms the generation of the forces in hydraulic equipment that are responsible for the generation and transmission of airborne, structureborne, and fluidborne sound.

There are examples of pump spectra with the various peaks in the spectrum related to the cause of the noise, examples of the effectiveness of control shaft isolators, information on the effectiveness of barriers, and examples of different types of plate radiation.

There are also chapters which cover the basics of different types of pumps, the nature of the generation of sound and vibration, and methods for the diagnosis of noise problems in various types of hydraulic machinery.

The publisher has used the same typography as that for the first book described above.