

Noise of turbocharger Compressors

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ABSTRACT

Noise produced by turbocharger compressors is becoming a major concern of turbocharging industry. But confusion exists regarding the sources of the noise. This paper discusses this noise from an aerodynamicist's point of view. Blade passing frequency noise and flow instability related noise are in particularly examined. Focus is on how these two noises are generated and how they may be controlled at source level. The aerodynamic causes of the noises are described and identified, and measures to reduce them at compressor design stage are proposed.

KEYWORDS

noise, turbocharger, compressor, aerodynamics