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# Sound-quality analysis of sewing machines (A)

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## Abstract:

Sound quality analysis procedure and results for six sewing machines ranging from entry level to professional grade will be presented. The procedure consisted of jury-based listening tests and quantification of sound quality using standard metrics. The procedures and analysis of the jury testing will be presented and discussed. The correlation between the quantitative metrics and the qualitative jury results will be presented. Sound localization scans, using near field acoustic holography techniques with accompanying results, performed in order to determine machine sound hot spots and possible sources for undesired sounds, will also be presented. Proposed modifications to machine structure in order to alter machine sound signature into a more sensory pleasant sound will also be presented.

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