

HUMAN RESPONSE TO SHOCK-TYPE VIBRATION ON HAND

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SUMMARY

Points of subjective equality between continuous vibration and shock-type vibration (repeated vibration) were examined in hand-transmitted vibration to find a tendency of human response to shock-type vibration (repeated vibration with short duration). On time and off time of the repeated vibrations were changed from 10 ms to 5s. Each adjustment involved a 10 second exposure to the repeated vibration and subsequent 10 second exposure to the continuous vibration. Frequencies of the vibrations were 8, 16, 31.5 and 100 Hz. Subjective magnitude of the shock-type vibrations (repeated vibrations) decreased with increase of off-time and with decrease of on-time of the repeated vibrations. Results of this experiment were compared with calculated r.m.s. values, r.m.q. values and other quantity. R.m.s. values underestimated the repeated vibration and r.m.q. values overestimated the vibration compared with human responses.

Key words: shock type vibration, hand vibration

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