<div align="center">

SCHEDULE 1   Regulations 4(1) and 6(5)

Hand-Arm Vibration

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Commencement Information

I1   Sch. 1 in force at 6.7.2005, see **reg. 1**

Part I-Daily exposure to vibration

The daily exposure to vibration ($A(8)$) of a person is ascertained using the formula:

$$A(8) = a_{hv} \sqrt{\frac{T}{T_0}}$$

where:

a_{hv} is the vibration magnitude, in metres per second squared (m/s^2;);

T is the duration of exposure to the vibration magnitude a_{hv}; and

T_0 is the reference duration of 8 hours (28,800 seconds).

To avoid confusion between vibration magnitude and daily exposure to vibration, it is conventional to express daily exposure to vibration in m/s^2 A(8).

The vibration magnitude, a_{hv}, is ascertained using the formula:

$$a_{hv} = \sqrt{a_{hwx}^2 + a_{hwy}^2 + a_{hwz}^2}$$

where:

a_{hwx}, a_{hwy} and a_{hwz} are the root-mean-square acceleration magnitudes, in m/s^2, measured in three orthogonal directions, x, y and z, at the vibrating surface in contact with the hand, and frequency-weighted using the weighting W_h.

The definition for the frequency weighting W_h is given in British Standard BS EN ISO 5349-1:2001.

Where both hands are exposed to vibration, the greater of the two magnitudes a_{hv} is used to ascertain the daily exposure.

If the work is such that the total daily exposure consists of two or more operations with different vibration magnitudes, the daily exposure ($A(8)$) for the combination of operations is ascertained using the formula:

$$A(8) = \sqrt{\frac{1}{T_0} \sum_{i=1}^{n} a_{hvi}^2 T_i}$$

where:

n is the number of individual operations within the working day;

a_{hvi} is the vibration magnitude for operation i; and

T_i is the duration of operation i.

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Changes to legislation: There are currently no known outstanding effects for the The
Control of Vibration at Work Regulations 2005. (See end of Document for details)

Part II-Exposure to vibration averaged over one week

The exposure to vibration averaged over one week ($A(8)_{week}$) is the total exposure occurring within a period of seven consecutive days, normalised to a reference duration of five 8-hour days (40 hours). It is ascertained using the formula:

$$A(8)_{week} = \sqrt{\frac{1}{5}\sum_{j=1}^{7}A(8)_j^2}$$

where:

A(8)j is the daily exposure for day *j*.

The exposure to vibration averaged over one week is for use only for the purposes of Regulation 6(5).

<div align="center">SCHEDULE 2</div> <div align="right">Regulations 4(2) and 6(5)</div>

<div align="center">Whole-Body Vibration</div>

Commencement Information

I2   Sch. 2 in force at 6.7.2005, see **reg. 1**

Part I-Daily exposure to vibration

The daily exposure to vibration ($A(8)$) of a person is ascertained using the formula:

$$A(8) = k\, a_w \sqrt{\frac{T}{T_0}}$$

where:

a_w is the vibration magnitude (root-mean-square frequency-weighted acceleration magnitude) in one of the three orthogonal directions, x, y and z, at the supporting surface;

T is the duration of exposure to the vibration magnitude a_w;

T_0 is the reference duration of 8 hours (28,800 seconds); and

k is a multiplying factor.

To avoid confusion between vibration magnitude and daily exposure to vibration, it is conventional to express daily exposure to vibration in m/s^2 A(8).

Daily exposure to vibration ($A(8)$) is evaluated separately for the x, y and z directions of vibration.

For horizontal vibration (x and y directions), $k = 1.4$ and a_w is obtained using the W_d frequency weighting. For vertical vibration (z direction), $k = 1.0$ and a_w is obtained using the W_k frequency weighting.

Definitions for the frequency weightings are given in International Standard ISO 2631-1:1997.

If the work is such that the total daily exposure consists of two or more operations with different vibration magnitudes, the daily exposure ($A(8)$) for the combination of operations is ascertained using the formula:

$$A(8) = \sqrt{\frac{1}{T_0} \sum_{i=1}^{n} a_{wi}^2 \, T_i}$$

where:

n is the number of individual operations within the working day;

a_{wi} is the vibration magnitude for operation i; and

T_i is the duration of operation i.

Part II—Exposure to vibration averaged over one week

The exposure to vibration averaged over one week ($A(8)_{week}$) is the total exposure occurring within a period of seven consecutive days, normalised to a reference duration of five 8-hour days (40 hours). It is ascertained using the formula:

$$A(8)_{week} = \sqrt{\frac{1}{5} \sum_{j=1}^{7} A(8)_j^2}$$

where:

$A(8)_j$ is the daily exposure for day j.

The exposure to vibration averaged over one week is for use only for the purposes of Regulation 6(5).