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## BEWARE OF 'WHITE FINGER' LITIGATION



In March 2006, the Department of Trade and Industry announced that the amount of compensation paid to sick miners, their widows and families passed £3 billion, just under half of which was for Vibration White Finger (VWF). More recently, in the case of Ford v Corus at Cardiff County Court, the judge found in favour of the plaintiff, stating that it was the employer's duty to give warnings and take steps to reduce vibration. In the case of tightening tools, such legal action can be avoided argues Philip Brodey of Norbar Torque tools.

The government is currently paying out around £2 million every working day in compensation for respiratory and vibration related injuries to miners and families of the deceased. Energy Minister Malcolm Wicks revealed that by the time the scheme winds up, the government will expect to have paid out in the region of £5 billion in compensation.

In the case of VWF, also known as hand arm vibration syndrome (HAVS) caused by using vibrating tools, the total number of claims registered is 170,000. Total compensation paid so far is £1.4 billion. These are the biggest personal injury claims in British legal history and possibly the world.

VWF/HAVS is an injury to the arm, hand, wrists, fingers or thumbs, which has been caused by or contributed to be exposure to vibration. This can result in a reduction of dexterity and ability to carry out common functions using these areas of the body.

Low vibration tools greatly reduce the risks of VWF, but purchasers of power tools often face a lack of reliable data on the actual vibration levels produced by various tools in use. Many manufacturers' data relates only to the vibration produced when the tool is free running, and vibration levels can increase dramatically under load.

The Health & Safety Executive (HSE) initially set a recommended safe limit of  $2.8 \text{ m/s}^2$  as the mean acceleration to which hands are subjected for an eight hour period. However, the 'Control of Vibration at Work' regulations of 2005 reduced the limits of exposure. The 2005 regulations define two action levels. The Daily Exposure Action Value (EAV) of  $2.5 \text{ m/s}^2$  is the level above which an employer must introduce a programme of controls to eliminate or reduce exposure and provide health surveillance to operators regularly exposed above the action value. A second limit, the Daily Exposure Limit Value (ELV) of  $5.0 \text{ m/s}^2$ , is the level above which the employer must take immediate action to prevent further exposure to vibration.

Research commissioned by Norbar Torque Tools compared the vibration effects on the user between a typical impact wrench and Norbar's Pneutorque® torque tool in a typical truck garage environment.

To measure the vibration, the researcher for the 'Industrial Noise and Vibration Centre' used an accelerometer attached to a typical impact wrench, as close as possible to the position of the operator's hand. Tests were then carried out using both an impact wrench and a Pneutorque tool to tighten ten truck wheel nuts to 600 N.m.

Averaged over the ten bolts, the total vibration measured for the impact wrench was  $18.8 \text{ m/s}^2$ , whereas Norbar's Pneutorque® registered only  $1.4 \text{ m/s}^2$  during the same test. While a user of the impact wrench would reach their daily exposure limit (EAV) in just eight minutes of wheel changing, the Pneutorque operator could perform the same task continuously for over 24 hours without breaching the EAV limit.

VWF is a greatly under-reported problem, despite HSE research indicating that over 2 million workers are exposed to vibration levels at which there are clear risks of developing disease. Employers are now however beginning to sit up and take notice as claims for damages resulting from VWF are now exceeding £100,000 for the worst affected individuals.