

Laser Safety

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At the November 2004 Turners' Meeting Andrew Reilly showed his laser pointer attachment for his deep hollowing jig. There was some discussion on the question of laser safety. Andrew used a consumer laser pointer, with the intensity reduced because he found it too bright.

Laser pointers use a red semiconductor laser diode to produce a highly collimated beam of light around 670 nanometers wavelength (a deep red colour). These are Class II lasers that are limited to a power output of less than 1 milliWatt. These sources can appear very bright and dazzle eyes for some time, but research has been unable to uncover any permanent damage done to eyes by lasers below this power level.



With laser pointers, although they appear very bright, the normal blink reflex of the eye limits the exposure and one sees a few spots that fade after a few minutes. The research showed that even with deliberate continuous exposures of up to 15 minutes, no damage could be detected, so there is no cause for concern when using laser pointers.

There are many other types of lasers and these can be dangerous, particularly the infra-red ones where the normal blink reflex does not protect the eye. Such lasers can be fitted to DVD players, laser printers, etc, so it is wise to respect the warning labels on the outside of such kit before dismantling.

(Update: Recently, much more powerful lasers such as green pointers used for astronomy talks have become available. These must be treated with great respect, as the much higher optical powers can cause irreversible harm.)

For more information see <http://members.misty.com/don/lasersaf.htm>