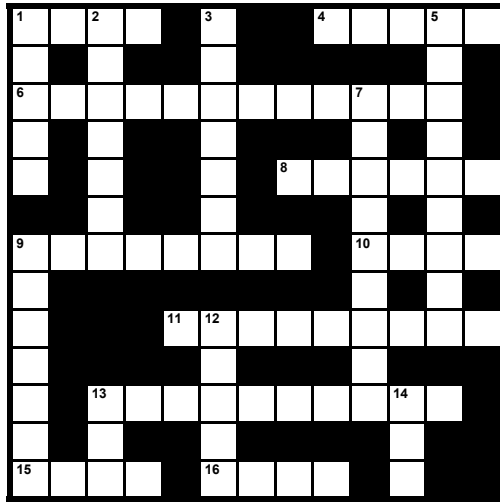


# Machines\_and\_Devices\_13x13\_2003-03-22

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## Across

- 1 A machine which carries objects or people from one place to another. It is powered by a hydraulic motor. Many offices and stores have lifts. A lift is sometimes called an elevator. (4)
- 4 Radar is a way to finding the position of objects. A radar set sends out radio waves. These are bounced back, or reflected, by certain objects and show up on the screen of the radar set. Radar is used by the ships and aircrafts to check their positions. (5)
- 6 A part of some internal combustion engine. It is uses exhaust gases from the engine to drive a turbine. This runs another turbine which forces more air into engine. (12)
- 8 It is a long piece of wire, a rod or a dish. It transmits or receives radio signals. An aerial is connected to a transmitter or a receiver. (6)
- 9 A small tool which are used for accurate work

on small objects. They have two jaws which are squeezed together to pick objects up. (8)

- 10 A part of a machine. It is a store of a liquid called lubricant. The lubricant is pumped from the sump to the other parts of the machine where it is needed. (4)
- 11 A part of the inside of a motor car. It lies in front of the driver. (9)
- 13 A piece of ground glass. It is thick in the middle and thin from the edges. A convex lens concentrates light passing through it onto a focal point. (6,4)
- 15 An inclined plane which usually connects two different levels. (4)
- 16 A weaving machine for making cloth. (4)

## Down

- 1 A machine tool. It is used for shape of polish wood or material. an object is held in the lathe and turned round, or rotated. Special turning tools are used to carry

out work on object. Small lathes can be powered by a foot pedal called a treadle. Larger lathes have an electric motor. many parts of cars engines are made with a lathe. (5)

- 2 A machine for heating things. It burns fuel or uses electricity to produce great heat. Furnaces are used to heat water and melt metals. (7)
- 3 A two-wheeled vehicle. Human feet pushes the pedals round provides the energy to drive a bicycle. It is steered by moving the handlebars. (7)

5 A pneumatic machine. It uses compressed air to push the hammer head down. (3,6)

7 A wheel which is set to spin. Once it is moving, it is difficult to tilt. A gyrocompass contains a gyroscope. (9)

9 A vehicle which is used mainly on farms. (7)

12 It is a block of iron or steel that is used to shape metal objects. One

end is shaped like an oblong block, the other like a cone. (5)

13 A kind of wheel which is not circular. It is used in machines to change circular movement into up and down movement. (3)

14 A fastening device. It is a piece of metal with four or six sides and a hole in the middle. Inside the hole is a spiral groove called a thread. This fits with the thread on a bolt. (3)