



Quality Control Workshop

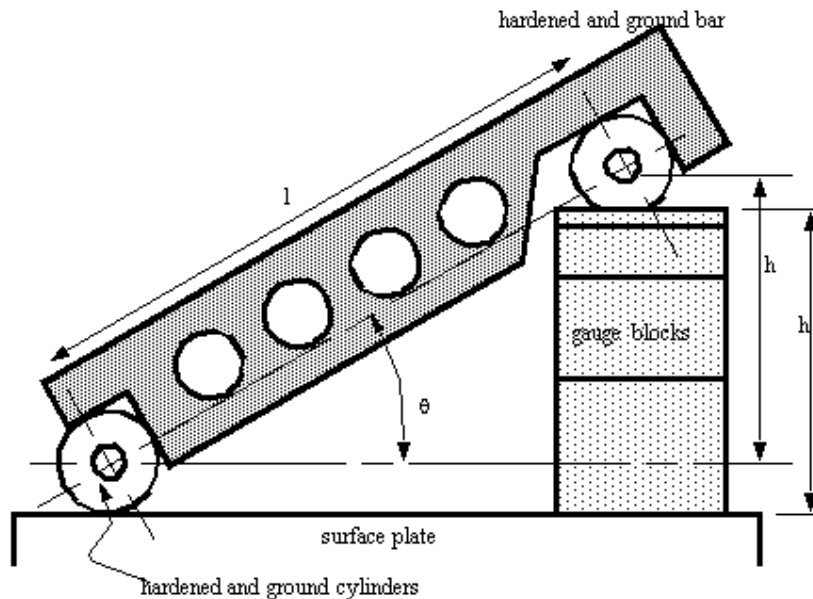
Sine bar

Objectives

When a reference for a non-square angle is required, a sine bar can be used.

Basically a sine bar is a bar of known length. When gauge blocks are placed under one end, the sine bar will tilt to a specific angle.

· The figure below shows a sine bar from the side,



l = distance between centres of ground cylinders (typically 5" or 10")

h = height of the gauge blocks

θ = the angle of the plate

$$\theta = \text{asin}\left(\frac{h}{l}\right)$$

· A simple example is - set up a sine bar with an angle of $24^{\circ}-57'$, if the sine bar has 5" centres.

$$\sin\left(24 + \frac{57}{60}\right) = \frac{h}{5.000}$$

$$\therefore h = 2.1091 \text{ inches}$$

continue on and calculate the gauge blocks required.....