

# Mining Props

## Benefits

- **FULL CAVING**

By introducing easily movable hydraulic props full caving is possible

- **ROOF CONTROL**

Quickly set hydraulic props provides resistance to convergence

- **FASTER OPERATIONS**

Time and effort to set hydraulic props is faster than timber

- **ECONOMY**

Hydraulic props are re-usable, self contained, and easily maintained

- **MATERIALS HANDLING**

There is no need to bring quantities of timber into the mine

- **ECOLOGY**

Less timber used underground means more timber growing in the forest

- **SAFETY**

Hydraulic props perform consistently, and are easy to use



*A Penny Duke Prop supporting a long wall at 30° inclination*



# The first choice of miners.

**Penny Hydraulics' props are the first choice of miners, their strength and efficiency going hand in hand with safety and productivity.**

Penny Hydraulics took over manufacturing, and design rights, of the Duke hydraulic prop over the turn of the millennium, November 2000.

Dowty Mining Equipment had introduced the world's first hydraulic prop for mining applications in September 1946, at Ollerton Colliery, Nottinghamshire, UK.

Since then over 5,000,000 props have been supplied to the mining industries of the world – making the Penny Duke hydraulic prop by far the most proven and popular, single hydraulic support.

The range of 25, 20 and 15T Penny Duke hydraulic props has gained an unrivalled reputation through consistent, safe, reliable and effective performance, whilst the self-contained nature of the prop gives flexibility for widespread application, without the need for any external hydraulic or electrical services.

By use of extensions, and with a varied range of prop hydraulic travel available, The Penny Duke prop 20, or 25T, is capable of operation from as low as 500mm, up to 2390mm. For special applications in thicker sections, a 15T prop is available extending to 3200mm.

For applications where a higher support density is required, the Penny "Gun Set" prop has been developed, to yield at 40T. These Gun Set props are available in a range of sizes to operate from as low as 600 mm, up to 2500 mm. A suitable source of hydraulic pressure, and appropriate hydraulic hose system, is required to power Gun Set props.

In addition, the Penny "Power" prop has been developed, as a safe, lightweight temporary support for use in sections ranging from 2200mm to 3500mm.

This prop yields at 11T, and is powered from hydraulic pressure from the powered supports, or even from the water range.



## Design & Technical Features

All the Penny prop types reflect the extensive experience of Penny Hydraulics in the manufacture, maintenance and repair of mining hydraulics.

### Penny Duke Prop features

- Proven, reliable design, trouble free in operation
- Overload protection through the extension
- Separate valves for setting, release, and yield
- Guard tube protects cylinder
- Rapid, safe, extension and setting
- Easy, safe release and withdrawal
- Remote release by hook and chain
- Fine control by two stage release valve
- Consistent setting and yield characteristics
- Self contained unit with closed circuit hydraulics

### **NEW!** Optional Duke Prop Features

- Removal of guard tube reduces prop weight by 20%
- Addition of new grab handles improves safety and manoeuvrability



### Penny Gun Set Prop features

- "Nicklex" plated inner tube provides a high level of corrosion protection against mine water
- High setting and yield loads up to 40 tonnes
- Consistent yield characteristics for the best possible roof control
- Extremely durable

### Penny Power Prop features

- Robust, versatile, and safe roof support for thicker seams
- Remote operating position
- Protected operating handle
- Quick setting action
- Light weight (only 42kg)
- Water compatible construction
- Consistent yield characteristics for the best possible roof control

Extensions can be made to any length required, from the minimum of 100mm, up to a maximum of 900mm.



**Friction Top**  
for general use and supporting timber



**Channel Top**  
for use supporting girders or long bars



**Prong Top**  
for use with serrated edge link bars