

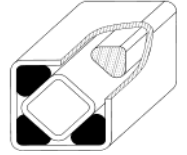
# Imagine Tensioning a Chain This Big?

*Think*

***SAFETY***

***Reliability***

***Low Maintenance***



## TRADITIONAL

A simple Jockey Sprocket mounted on a pedestal with vertical adjustment.

- Limited in its adjustment.
- High sprocket wear.
- Bearing failure.



## HISTORY

### Stage 1

More than 20 years plus ago, we developed the first major upgrade to chain tensioning on Rotating Coal Breakers.

We mounted the sprocket on a frame with a rubber torsion spring connected to a mechanical vertical adjusting screw.

- Semi-automatic adjustment within the range of a single torsion spring angular movement.
- Reduced shock-load to bearings.

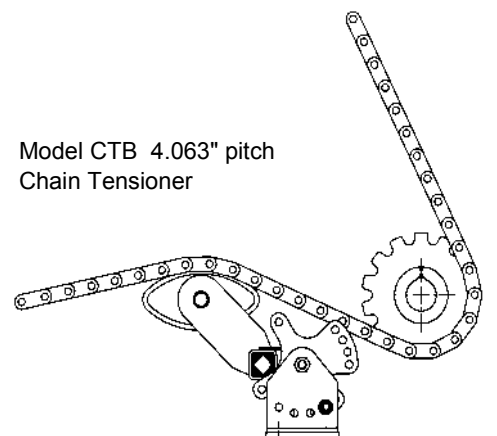
This was a huge step forward from the old systems being used.



## THE NEXT UPGRADE

### Stage 2

Some 19 years ago, we made the most significant upgrade, engineering out all of the faults in the **Stage 1** system .



Model CTB 4.063" pitch  
Chain Tensioner

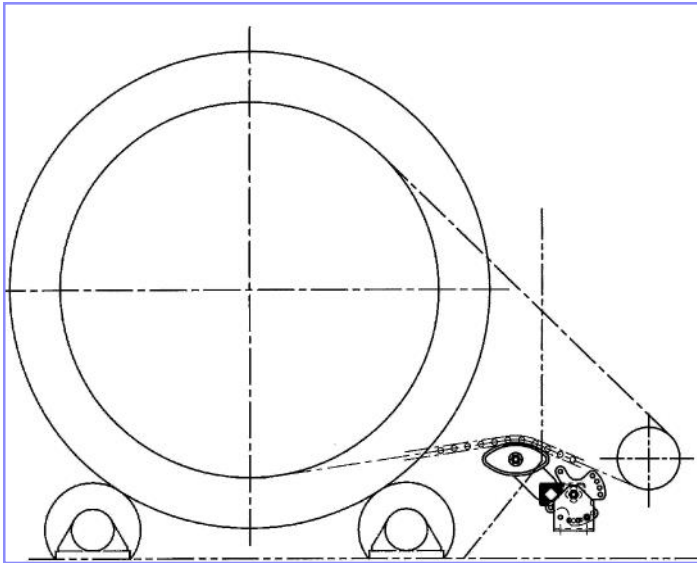
## THE NEXT UPGRADE

### Stage 2

The **STAGE 1** sprocket assembly including bearings weighted well over **100 kilograms**. Required greasing regularly and was subject to bearing failure. The rubber torsion spring was limited in its movement and often required replacing due to oil and grease from the chain destroying the natural rubber elements.

The design required the chain run above the supporting structure.

The solution was to redesign and upgrade to a modern system that would be simple to adjust, and provide a long service life.



#### Polymer Rubbing Block

Can be used on both sides. The smooth surface reduces chain wear. Eliminates noise from the chain engaging a steel sprocket.

#### Dual Rubber Torsion Springs.

Doubles the angular movement for greater chain adjustment.

#### Bracket

The fixing bracket can be mounted in any position to suit application.

#### Polymer Rubbing Block Position.

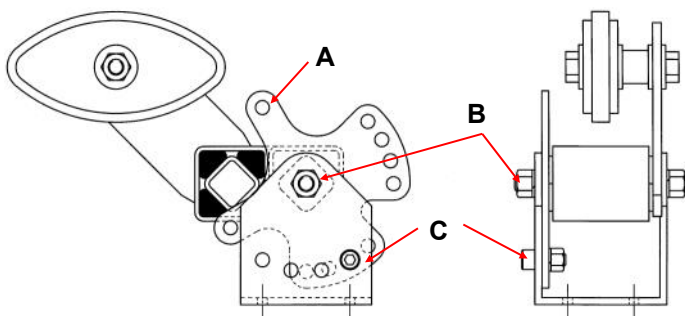
Can be mounted right or left handed. The best position is shown in the picture (outboard). The spring is clear of contaminants such as oil and grease.

### Adjusting & Maintenance

1. Fit chain block or "come a long" to hole **A** and take up slack.
2. Loosen pivot bolt **B**.
3. Remove locking bolt **C**.
4. Adjust with chain block.
5. Refit locking bolt **C**
6. Retighten pivot bolt **B**
7. Remove chain block.

### Benefits

- **The Polymer Rubbing Block will outlast a sprocket by up to 4 times.**
- **The rubbing block weighs 5 kilograms and can be replaced in approximately 25 to 30 minutes. A sprocket can take all day.**
- **No bearings to replace.**
- **Will extend the chain life.**
- **No more gut busting.**
- **Noise reduction** due to the chordal effect of the sprocket engaging the chain has been eliminated and secondly solid borne noise is dissipated due to the rubber torsion spring.



## From One Inch to Six Inch Pitch

### Reducing Chain Drive Operating Costs



**Phone 07 3737 2400**  
**e-mail address: [sales@leverlink.com.au](mailto:sales@leverlink.com.au)**

#### **CONTINUOUS IMPROVEMENT POLICY**

As a part of our policy of continuous improvement, Leverlink<sup>®</sup> reserves the right to make design and specification changes for product improvement without prior notice.