



# PROFESSIONAL CHAIN WEAR GAUGE

Device for the accurate measurement of chain elongation  
Suitable for all 3/8 to 3 inch pitch chains

## **Important Notice**

All chain inspections must follow the requirements of The Lifting Operations and Lifting Equipment Regulations (LOLER) 1998; The Provision & Safe Use of Work Equipment Regulations (PUWER) 1998; the FLTA Technical Bulletin; the BITA Guidance Notes GN15 and GN28; and BS EN45004:1995.

Over time chain elongates as it wears leading to a significant increase in actual pitch and potential chain failure. When the nominal pitch length has extended by 2-3%, the fatigue life is reduced and the ultimate breaking strength is considerably lower. At 2% elongation a service technician must set a safe time limit for replacement. At 3% the chain must be replaced immediately.

This device measures chain wear and indicates percentage elongation.

## Instructions for use

### Step 1 - Close gauge to confirm calibration

Check the calibration by closing the slide fully and reading from the 'Percentage Wear' window. If the arrow moves into the  $\pm$  zones, the gauge will not give an accurate measurement and should not be used. Similarly if the 'V' jaws are damaged the instrument may also not perform accurately.



### Step 2 - Identify the pitch

Align the red arrows within the centre of the pins on ONE of the OUTER link plates. Depending on ease of access, one pair of arrows will be more suitable than the others. The nominal pitch will appear in the 'Pitch' window. The number of pins (n) that the chain is to be measured over will appear in the 'Measure over pins' window.



### Step 3 - Select the correct side of the gauge

Select the correct scale according to pitch sizes.

SCALE A	SCALE B
3/8"	1 3/4"
1/2"	2"
5/8"	
3/4"	
1"	
1 1/4"	
1 1/2"	
2 1/2"	
3"	

### Step 4 - Measure the chain

Chains should be cleaned and measured in situ while placed under approx. 1% of the minimum breaking load. If a set of check weights is not available, it is sufficient for chains to be tensioned by the weight of the carriage and forks. Identify the section of the chain that regularly runs over the pulley as this part of the chain is most susceptible to wear. Measurements must then be made in at least 3 separate locations on this section. Place one 'V' jaw of the instrument over the first pin of the selected sections and then extend the slide until the other 'V' jaw reaches the final pin as previously determined in step 2.



### Step 5 - Read off percentage

Check the 'Percentage Wear' windows. A percentage will appear in 0.25% (1/4%) increments. If the chain has elongated by 2% or more, the warning window will be filled red and necessary action must be taken.



#### Care

- Keep the instrument free of oil and grease. Wipe it after use and store it in the case provided.
- Do not expose the gauge to high temperatures where it may warp and lose accuracy.



PATENT: 2285686  
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