

2021

PILODYN 6J Wood Tester Instruction Manual



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Thank you for your recent purchase of Hylec's Pilodyn Wood Tester.
Please read the instruction manual before operating the equipment.

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Warning to operate safely

We appreciate you purchasing our product wood tester PILODYN (to be described “this product” hereinafter).

This product is the device developed to clarify the quality of wood.

We ask you to handle this product and considering safe operation for the use of measuring quality of wood. (We accept no responsibility for use of this product for any other purpose).

We prohibit this product being pointing directly at any person.

We ask you to read the manual carefully before using this product, to ensure correct, safe operation.



1. Overview

1.1 Principle of Measuring method

Pilodyn was designed to evaluate logs and timber. This product is furnished with the pin at the tip which is struck to the wood through some energy. The status of the wood can then be evaluated from the reading depth of the pin penetration.

The evaluation for the grade of the decay invaded from timber outer surface is most effective and the Pilodyn is used to survey the decay at:

- Playgrounds in the park.
- Bases of houses.
- Wood of forestry conservancy.

This product is appraised well, due to its more facility to handle and being compact for portable usage.



1.2 Criteria of measurement by Pilodyn

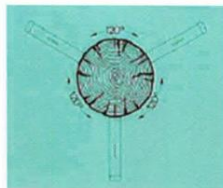
In the evaluation of the wood status with Pilodyn, the relation between penetration depth and the wood density and the relation between the penetration depth and the bending stress of the wood should be considered. These values are always different depending on the measuring points for the organic substances like wood e.g., knots.

The evaluation with this product should be carried out essentially by measuring as many points as possible, instead of by a single point.

Examples



Measurement between pole and ground

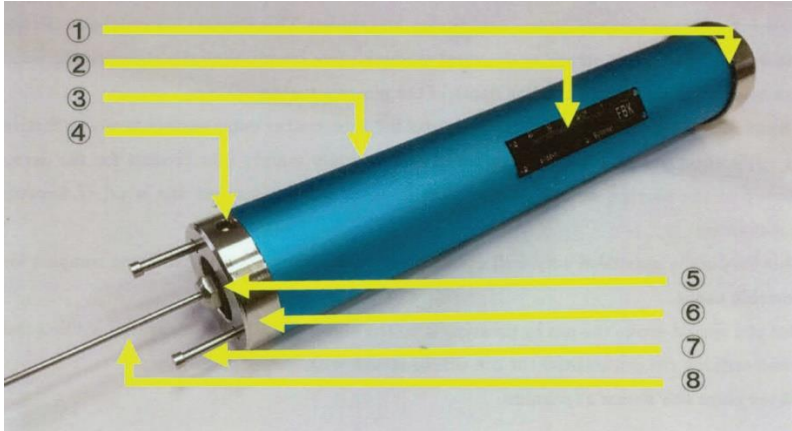


Measuring points



Section of actual decay part

2 Parts



1	End Cap (trigger)	5	Nut for Striker Pin
2	Scale	6	Head
3	Housing	7	Acute Angle Holder (flat type for forest)
4	Wing Bolt screw hole	8	Striker Pin

3. Standard accessories



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1	Acute Angle Holders (Pin type)	5	Loading Rod Wrench
2	Acute Angle Holder (Flat type)	6	Wing Bolt
3	Striker Pin (Standard) 60mm	7	Hexagon Wrench
4	Striker Pin (Forest) 80mm	8	Barking Knife

4. Specification



Energy	CA. 6 joule
Dimension (Body)	F 50 x 345mm
Weight (Body)	CA. 900g
Size of Case	350mm x 75mm x 65mm
Scale	0 ~40mm
Pin size	F 2.5mm x 60mm F 2.5mm x 80mm

5. Operation Manual

2.1 Notice to operate.

This product is furnished with very thin pin at the tip and is capable of injuring persons if it is mishandled or used inappropriately.

WARNING:

- Never point it at a person
- We strongly recommend you strike the pin by pressing firmly on it on the object (wood) to be measured when operating this product.



2.2 Setting.

- Insert the pin portion of this device into the Loading Rod Wrench. Hold the device strictly with both hands.
- Press the Loading Rod Wrench till the signal of arrival to the end. At this moment be careful not to cause injury.
- Pull out the Loading Rod Wrench to complete the setting procedure. Never point the pin inserting hole at a person after completion of the setting.
- Blank shoot may be the reason of trouble or fault. Shoot to the object to be measured only.

6. Measuring method



Press straight on the specimen to be measured.



Hold the device strictly with both hands, press the trigger slowly and shoot the Striker Pin.



Read the value on the scale when the pin is penetrated.



Pull out the pin straight to ensure it is not damaged.

7. Replacement of the Striker Pin

In case the Striker Pin is broken, the Pin must be changed from the Standard type to the Forest type or vice versa, the Striker Pin should be replaced under the following procedures. The replacement should be performed only under the condition that the trigger is not set.



Screw the Wing Bolt and fix the Nut on the root of the Pin.



Insert the Loading Rod Wrench and turn it counterclockwise.



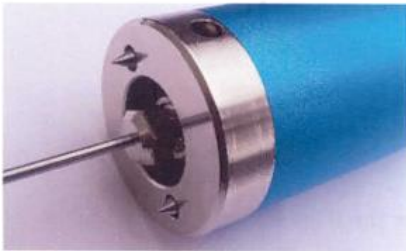
Remove the Nut for the Striker Pin and change the Striker Pin and install it through the reverse procedure.



There is a Spacer Cylinder in the centre hole. Take care not to lose it when removing the Nut for the Striker Pin.

8. Replacement procedure for Standard and Forest type

The Pilodyn most appropriate method for measuring depends on the condition of the specimen. The Acute Angle Holder on the Head can be changed for the length of the Striker Pin.



Standard mode:

Install the short metal tip. The pin is inserted into the specimen and the device is stable.

For use: wood pole, wood

Pin size: 60mm pin size



Forest mode:

Install the long metal flat type tip.

For use: specimens with concave and convex surfaces, bottom of the ditch.

Pin size: 80mm



1. Turn the Set Screw at the side of the Head around 2 times with Hexagon Wrench to remove the Acute Angle Holder.
2. Remove the Acute Angle Holder (pin and flat type).

It is easy to remove the Holder by reversing the body.

Take care not to lose due to tiny parts.

Perform the replacement through same procedure.



9. Daily maintenance

Confirm the following items every time before using:

- a. The Head and the End is fixed strictly on the Housing.
- b. The Striker Pin, Acute Angle Holder and Set Screw are (strictly) fixed.
- c. There is no damage nor bending on the Striker Pin.

If there is any looseness on the device, fasten strictly again to use safely.

In the case that any abnormal status or damage occurs with the device, please stop using it and contact us.



10. Contact details

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