

Pocket Watch Glass Sizes

I have a bunch of pocket watch crystals. They are all marked as follows: 21 4/16 22 4/8
What kind of measurement is this? And what kind of fractions? I spent too many hours learning to reduce fractions, and now I see not everyone does?

There are 4 different systems used to measure crystal diameters.

1. Three digit whole numbers:

This is tenths of a mm

Example: 487 = 48.7 mm

2. Whole number with 1/16 fractions:

This is the common ligne system.

1 ligne = 2.255883 mm.

Example: 21 10/16 = 21 10/16 x 2.255883 = 48.7 mm.

3. Whole number with 1/8 fractions

This is the ligne system where 0 = 10 lines and
each full size increment = 1/2 ligne

4. Whole number with 1/4 Fractions:

This system is not very popular.

It is called the Lancashire or English System.

In this system, 0 = 1 1/30 inches.

Each full crystal size increment is 1/30 inch larger than the previous.

For example, if the crystal is labelled 26 1/2:

$1 \frac{1}{30} + (26 \frac{1}{2} \times \frac{1}{30}) = 1.917$ inches

$1.917 \text{ inches} \times 25.4 \text{ mm/inch} = 48.7 \text{ mm.}$

(This is extracted from a Crystal Data Sheet produced by Hank & Marge Farrer)

Now you can see why this last system is hardly used anymore!

Your crystals use Method #2 and #3.

If it's too confusing, suggest that you re-measure your crystals in mm,
and re-label them using Method #1

Hope that this helps.

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