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Name of Procedure:

TireTread Impressions (Examination)

Suggested Uses:

This procedure is a method of comparing a questioned TireTread impression to a known TireTread impression to effect a positive or conclusive identification.

Equipment Needed to Perform Procedures:

A - Clear Acetate overlay of known footwear impression

B - Caliper

Chemicals Needed For Preparation of Chemical Solution(s):

Not Applicable

Formula/Directions for Preparation of Chemical Solution(s):

Not Applicable

Processing Procedures for Application to Item(s) of Evidence:

1. The clear acetate overlay of the questioned TireTread impression is placed over the tread of the known tire covering the entire area of the tire. They are compared to determine what portion(s) of the known tire are consistent with the questioned impression in tread design, size of the elements in the tread design, distances between the elements and general wear characteristics.
2. Once it has been determined that portions of the tire are consistent with the questioned TireTread impression, calipers are then used to measure distances between specific points on the questioned TireTread impression and the known standard (Using the actual cast, photograph or lift of a hard surface TireTread impression and not the acetate overlay).
3. Once it has been determined that the class and general wear characteristics of a portion of the known tire are consistent with those of the questioned TireTread impressions, an examination is then conducted to determine if there are any unique or identifying characteristics present in one portion known of the tire and in the questioned TireTread impression. Unique characteristics are any features that would cause an item to become "one-of-kind." These characteristics include nicks, cuts, abrasions or tears which have occurred randomly as a result of the use or abuse of the tire.

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4. When a sufficient number of unique or identifying characteristics are present in both the questioned and the known tire, it is possible that the known tire can be "identified" as the particular tire that made the questioned TireTread impression.

Steps to Preserve Developed Impressions:

The developed impressions may be preserved through photography with the appropriate techniques utilized (See Photographic Equipment/Procedures) or recorded electronically (See Image Processing). See the above Processing Procedures for additional preservation information.

Safety Concerns:

Not Applicable

Storage and Location of Chemicals and Solutions:

Not Applicable

Shelf Life:

Not Applicable

Other Information:

Not Applicable