**CLAIMS**

[Claim 1]

A wire measurement device characterized that the wire measurement device comprises:

a first line camera and a second line camera which are disposed at both ends of a rooftop of a railroad car in a railroad-tie direction to be tilted toward a center of the railroad car in the railroad-tie direction and which captures images of wires; and

an image processing unit which calculates height and deviation of a measurement target wire by detecting wire information and sliding surface information of the measurement target wire from the image captured by the first line camera and the image captured by the second line camera, and by performing matching for the measurement target wire between the captured images by using the wire information and the sliding surface information,

characterized in that when the sliding surface information do not exist in the measurement target wire, the image processing unit performs the matching by using information on time at which the measurement target wire intersects a contact wire having a sliding surface and the sliding surface information of the contact wire.

[Claim 2]

The wire measurement device according to claim 1, characterized in that the image processing unit includes:

a sliding surface extracting unit which detects the sliding surface information from the image captured by the first line camera and the image captured by the second line camera;

a wire extracting unit which detects the wire information from each of the image captured by the first line camera and the image captured by the second line camera;

a joining unit which creates joined wire information from the wire information;

a matching unit which performs the matching by using the

sliding surface information when the sliding surface information exists in the measurement target wire and which performs the matching by using the information on time at which the measurement target wire intersects the contact wire having the sliding surface and the sliding surface information of the contact wire when the sliding surface information does not exist in the measurement target wire; and

a stereo measuring unit which calculates the height and deviation of the measurement target wire by performing stereo measurement of matched pieces of joined wire information out of pieces of the joined wire information in the image captured by the first line camera and the image captured by the second line camera.

[Claim 3]

A wire measurement method, characterized in that the wire measurement method comprises:

disposing a first line camera and a second line camera which captures images of wires at both ends of a rooftop of a railroad car in a railroad-tie direction such that the first line camera and the second line camera are tilted toward a center of the railroad car in the railroad-tie direction: and calculating height and deviation of a measurement target wire by detecting wire information and sliding surface information of the measurement target wire from the image captured by the first line camera and the image captured by the second line camera, and by performing matching for the measurement target wire between the captured images by using the wire information and the sliding surface information, characterized in that the wire measurement method comprises:

when the sliding surface information do not exist in the measurement target wire, performing the matching by using information on time at which the measurement target wire intersects a contact wire having the sliding surface and the sliding surface information of the contact wire.

[Claim 4]

The wire measurement method according to claim 3, characterized in that the wire measurement method comprises:

detecting the sliding surface information from the image captured by the first line camera and the image captured by the second line camera,

detecting the wire information from the image captured by the first line camera and the image captured by the second line camera,

creating joined wire information from the wire information,

performing the matching by using the sliding surface information when the sliding surface information exists in the measurement target wire and performing the matching by using the information on time at which the measurement target wire intersects the contact wire having the sliding surface and the sliding surface information of the contact wire when the sliding surface information does not exist in the measurement target wire,

calculating the height and deviation of the measurement target wire by performing stereo measurement of matched pieces of joined wire information out of pieces of the joined wire information in the image captured by the first line camera and the image captured by the second line camera.