CLAIMS

What is claimed is:

1. A dynamic simulation display method for a working machine structure, comprising:

acquiring working condition data of a working machine in real time, the working condition data comprising angle data of an operating arm, and the angle data of the operating arm comprising angle data of a lower arm; and

updating a currently displayed working machine structure dynamically according to the working condition data;

wherein the angle data of the lower arm is obtained based on an angle sensor disposed on a lower arm of an operating arm of the working machine;

the angle data of the operating arm further comprises angle data of an upper arm, and the angle data of the upper arm is obtained based on an angle sensor disposed on an upper arm of the operating arm of the working machine; and

when the angle data of the lower arm and the angle data of the upper arm are different, it is indicated by the displayed working machine structure that a crane arm structure has been bent and deformed during a time interval from a previous moment to the current moment, resulting in an included angle between the lower arm and the upper arm.

2. The dynamic simulation display method for the working machine structure according to claim 1, wherein the currently displayed working machine structure is obtained by combining assembly drawings of the working machine based on working condition data of the working machine obtained at a previous time; and the assembly drawings are generated based on a physical structure model of the working machine.

3. The dynamic simulation display method for the working machine structure according to claim 1, after the acquiring working condition data of a working machine in real time, the method, further comprising:

displaying the working condition data dynamically.

4. The dynamic simulation display method for the working machine structure according to claim 3, wherein the displaying the working condition data dynamically specifically comprises:

displaying the working condition data in a display area which is not the display area of the working machine structure; and/or,

marking the working condition data at a corresponding position of the working machine structure.

5. The dynamic simulation display method for the working machine structure according to claim 3, after the updating a currently displayed working machine structure dynamically according to the working condition data, further comprising:

if the currently displayed working machine structure is outside a working area, highlighting the working condition data.

6. The dynamic simulation display method for the working machine structure according to any one of claims 1 to 5, wherein the working condition data further comprises: height data of a lifting hook of the working machine and distance data of an arm head from a lifting hook of the working machine to the operating arm, the height data of the lifting hook is determined based on a rope length extended by winch detected by a counting detection device provided on a winch of the working machine and a multiplying ratio, and the distance data of the arm head is determined based on the height data of the lifting hook.

7. The dynamic simulation display method for the working machine structure according to any one of claims 1 to 5, wherein the operating arm comprises a main arm and an auxiliary arm; and accordingly,

the working condition data further comprises: angle data of an operating arm corresponding to the main arm, angle data of an operating arm corresponding to the auxiliary arm, and an included angle between the main arm and the auxiliary arm.

8. A dynamic simulation display system for a working machine structure, comprising: a processor and an angle sensor, wherein the processor is connected to the angle sensor, the angle sensor is disposed on a lower arm of an operating arm of a working machine; and

the processor is used for executing the dynamic simulation display method for the working machine structure according to any one of claims 1 to 7.

9. The dynamic simulation display system for a working machine structure according to claim 8, further comprising: a counting detection device;

wherein the counting detection device is disposed on a winch of the working machine, and the counting detection device is used for measuring a rope length extended by winch and a multiplying ratio.