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Tool for Crimping Motor Connector with Motor

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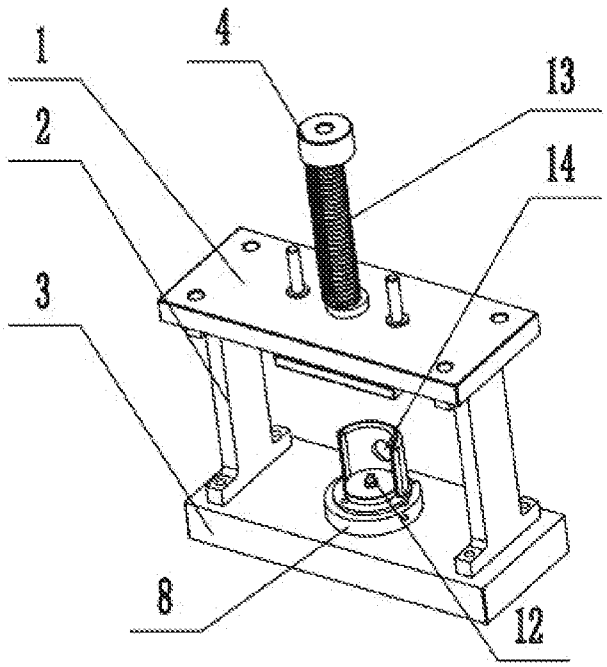
Title: Tool for Crimping Motor Connector with Motor

Abstract

The present invention relates to a tool for crimping a motor connector with a motor, comprising a bracket, a motor positioning frame and a stamping device. The bracket consists of an upper plate, a soleplate and two side plates, which are in screwed fit with each other. The motor positioning frame is disposed on the soleplate. The motor positioning frame consists of a motor accommodating pedestal and a motor positioning sleeve. The stamping device consists of a compress block, a compress column, a guide sleeve and a reset spring.



Description

Tool for Crimping Motor Connector with Motor

Technical Field of the Invention

The present invention relates to a tool for crimping a motor connector with a motor.

Background of the Invention

At present, the connection of a motor with a motor connector is usually realized manually. A motor connector is placed on a motor shaft and then knocked into the motor shaft by a rubber hammer. In this way, as the coaxial degree cannot be effectively controlled, the defective rate will be increased, and the efficiency is low.

Summary of the Invention

In view of the problems in the prior art, an object of the present invention is to provide a technical solution of a tool for crimping a motor connector with a motor.

The tool for crimping a motor connector with a motor includes a bracket, a motor positioning frame and a stamping device, wherein the bracket consists of an upper plate, a soleplate and two side plates, which are in screwed fit with each other, the upper plate and the soleplate being disposed in parallel; the motor positioning frame is disposed on the soleplate and consists of a motor accommodating pedestal and a motor positioning sleeve, the motor positioning sleeve being of an arc structure, the motor positioning sleeve being vertically disposed on the motor accommodating pedestal, the motor accommodating pedestal being in screwed fit with the soleplate; and the stamping device consists of a compress block, a compress column, a guide sleeve and a reset

spring, the guide sleeve being embedded into the center of the upper plate, the compress block being disposed at the upper end of the compress column, a cavity structure fitted with a motor connector being provided at the lower end of the compress column, the reset spring being sheathed on the compress column between the compress block and the guide sleeve, the compress column being disposed in a sliding manner in the guide sleeve, the compress column and the motor connector being disposed coaxially.

Preferably, a guide device is provided on a side of the stamping device, the guide device consisting of guide columns, guide sleeves and a connecting plate, the guide sleeves being symmetrically disposed on two sides of the compress column and embedded into the upper plate, the guide columns being disposed in a sliding manner in the guide sleeves, the guide columns and the compress column being disposed in parallel, the lower ends of the guide columns being connected to the compress column via the connecting plate, both the compress column and the guide column being in interference fit with the connecting plate, the connecting plate and the soleplate being disposed in parallel, the length of the guide columns being greater than the stroke length of the compress column.

In the present invention, by the fit of the bracket, the motor positioning frame and the stamping device with the guide device, the coaxial degree during connecting a motor connector with a motor shaft is ensured, and the motor connector is directly pressed into the motor shaft by the compress column such that the one-pass rate of the products is ensured; meanwhile, with a sunken structure on the bottom of a motor, an ejector column is provided on the motor accommodating pedestal, so that the stability of the motor may be ensured by fitting the ejector column with the sunken structure; moreover, magnetic steel is provided on the motor positioning sleeve, so that the magnetic steel will secure the motor when the motor is placed on the motor positioning frame, and the coaxial degree of the motor shaft and the compress

column is thus ensured.

Brief Description of the Drawing

Fig. 1 is a structure diagram 1 of the present invention;

Fig. 2 is a structure diagram 2 of the present invention; and

Fig. 3 is a structure diagram when a motor is connected to a motor connector.

Detailed Description of the Invention

The present invention will be further described as below with reference to the accompanying drawings.

A tool for crimping a motor connector with a motor is provided, including a bracket, a motor positioning frame and a stamping device. The bracket consists of an upper plate 1, a soleplate 3 and two side plates 2, which are in screwed fit with each other. The upper plate 1 and the soleplate 3 are disposed in parallel. The motor positioning frame is disposed on the soleplate 3 and consists of a motor accommodating pedestal 8 and a motor positioning sleeve 11. The motor positioning sleeve 11 is of an arc structure. Magnetic steel 14 is provided on the motor positioning sleeve 11. When a motor 16 is placed on the motor positioning frame, the magnetic steel 14 will secure the motor 6, so that the coaxial degree of a motor shaft and a compress column 9 is ensured. The motor positioning sleeve 11 is vertically disposed on the motor accommodating pedestal 8. The motor accommodating pedestal 8 is in screwed fit with the soleplate 3. The motor accommodating pedestal 8 is circular, and an ejector column 12 fitted with a sunken structure on the bottom of the motor is provided in the center of the motor accommodating pedestal. The fit of the ejector column 12 with the sunken structure may ensure the stationarity of the motor. The stamping device consists of a compress block 4, a compress column 9, a guide sleeve 5 and a reset spring 13. The guide sleeve 5 is embedded into the

center of the upper plate 1. The compress block 4 is disposed at the upper end of the compress column 9. A cavity structure fitted with a motor connector 15 is provided at the lower end of the compress column 9. The reset spring 13 is sheathed on the compress column 9 between the compress block 4 and the guide sleeve 5. The compress column 4 is disposed in a sliding manner in the guide sleeve 5. The compress column 9 and the motor connector 15 are disposed coaxially.

To ensure the reliability of the stamping device, a guide device is provided on a side of the stamping device. The guide device consists of guide columns 6, guide sleeves 10 and a connecting plate 7. The guide sleeves 10 are symmetrically disposed on two sides of the compress column 9 and embedded into the upper plate. The guide columns 6 are disposed in a sliding manner in the guide sleeves 10. The guide columns 6 and the compress column 9 are disposed in parallel. The lower ends of the guide columns 6 are connected to the compress column 9 via the connecting plate 7. Both the compress column 9 and the guide columns 6 are in interference fit with the connecting plate 7. The connecting plate 7 and the soleplate 3 are disposed in parallel. The length of the guide columns 6 is greater than the stroke length of the compress column 9. By fitting the guide device with the stamping device, the moving trajectory of the compress column may be ensured.

Claims

1. A tool for crimping a motor connector with a motor, comprising a bracket, a motor positioning frame and a stamping device, characterized in that the bracket consists of an upper plate, a soleplate and two side plates, which are in screwed fit with each other, the upper plate and the soleplate being disposed in parallel; the motor positioning frame is disposed on the soleplate and consists of a motor accommodating pedestal and a motor positioning sleeve, the motor positioning sleeve being of an arc structure, the motor positioning sleeve being vertically disposed on the motor accommodating pedestal, the motor accommodating pedestal being in screwed fit with the soleplate; and, the stamping device consists of a compress block, a compress column, a guide sleeve and a reset spring, the guide sleeve being embedded into the center of the upper plate, the compress block being disposed at the upper end of the compress column, a cavity structure fitted with a motor connector being provided at the lower end of the compress column, the reset spring being sheathed on the compress column between the compress block and the guide sleeve, the compress column being disposed in a sliding manner in the guide sleeve, the compress column and the motor connector being disposed coaxially.

2. The tool for crimping a motor connector with a motor according to claim 1, characterized in that a guide device is provided on a side of the stamping device in a fit manner, the guide device consisting of guide columns, guide sleeves and a connecting plate, the guide sleeves being symmetrically disposed on two sides of the compress column and embedded into the upper plate, the guide columns being disposed in a sliding manner in the guide sleeves, the guide columns and the compress column being disposed in parallel, the lower ends of the guide columns being connected to the compress column via the connecting plate, both the compress column and the guide column being in interference fit with the connecting plate, the connecting plate

and the soleplate being disposed in parallel, the length of the guide columns being greater than the stroke length of the compress column.

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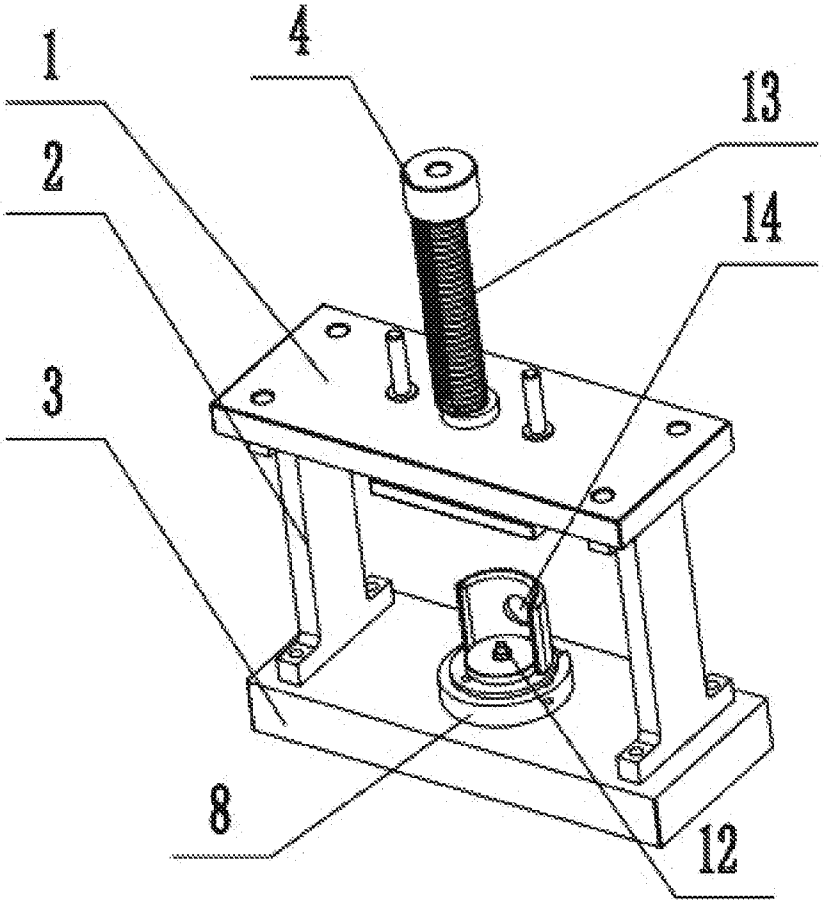

FIG.1

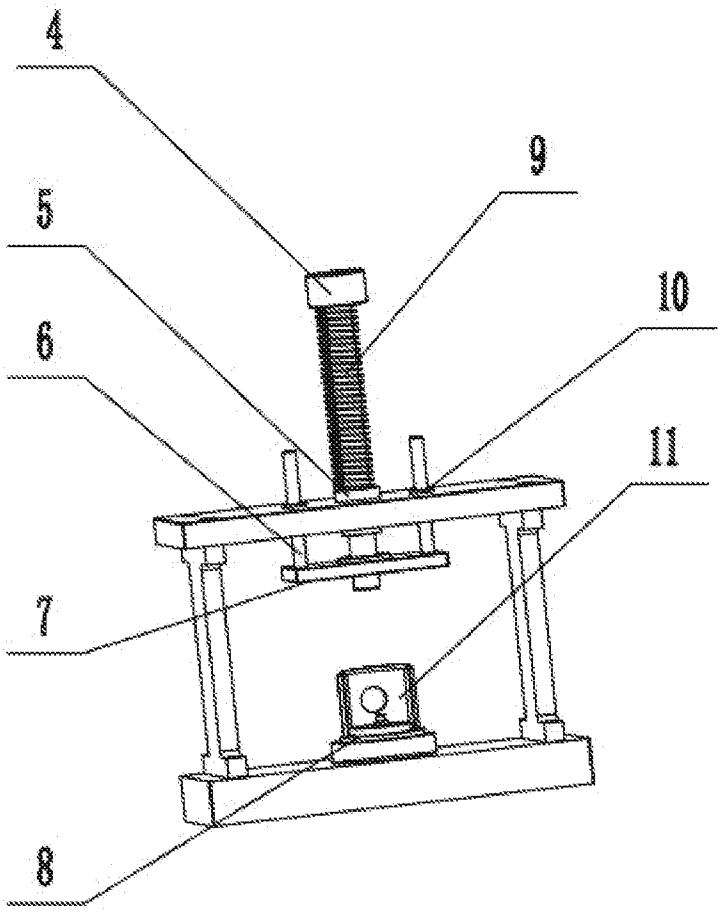

FIG.2

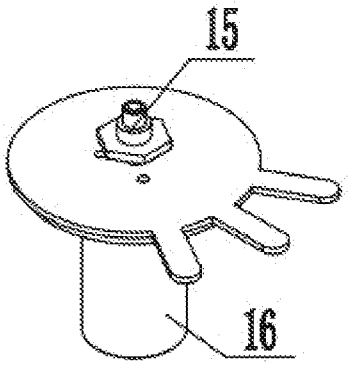

FIG. 3