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<th>(21) Application No: 2014101115</th>
<th>(22) Date of Filing: 2014.09.10</th>
</tr>
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<tr>
<td>(45) Publication Date: 2014.10.09</td>
<td>(45) Publication Journal Date: 2014.10.09</td>
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<td>(45) Granted Journal Date: 2014.10.09</td>
<td></td>
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Title: Tool Clamp for Grinding Positioning Sleeve for Built-in Gearbox of Synchronous Motor

Abstract

The present invention relates to a tool clamp for grinding positioning sleeves for a built-in gearbox of a synchronous motor, comprising a soleplate and a fixed baffle fixedly connected with the soleplate. The soleplate is provided with a plurality of moving baffles which are in parallel with the fixed baffle, at least one moving baffle is associated with an ejector device, and the height of the moving baffles is lower than the height of a sleeve to be processed; and at least one magnetic adsorption device, which can be used for adsorbing the sleeve to be processed onto the soleplate, is provided below the soleplate or beside the soleplate.
Description

Tool Clamp for Grinding Positioning Sleeve for Built-in Gearbox of Synchronous Motor

Technical Field of the Invention

The present invention relates to a tool clamp for grinding positioning sleeves for a built-in gearbox of a synchronous motor.

Background of the Invention

In order to ensure all end plates of a built-in gearbox of a synchronous motor to be parallel, it is necessary to keep positioning sleeves constant in length. It is difficult to keep positioning sleeves constant in length if they are machined one by one. As a result, the end plates of a built-in gearbox of a synchronous motor are not parallel, and faults such as locking of the gear sets may be caused.

Summary of the Invention

The present invention provides a tool clamp for grinding positioning sleeves for a built-in gearbox of a synchronous motor, by which a batch of positioning sleeves may be machined at one time and the positioning sleeves may be well kept constant in length.

The above technical object of the present invention is mainly solved by the following technical solutions. A tool clamp for grinding positioning sleeves for a built-in gearbox of a synchronous motor is provided, including a soleplate and a fixed baffle fixedly connected with the soleplate; the soleplate is provided with a plurality of moving baffles which are in parallel with the fixed baffle, at least one moving baffle is associated with an ejector device, and the height of the moving baffles is lower than the height of a sleeve to be
processed; and at least one magnetic adsorption device, which can be used for adsorbing the sleeve to be processed onto the soleplate, is provided below the soleplate or beside the soleplate. Positioning sleeves, which are cut properly, are fixed by the fixed baffle and the moving baffles onto a plate in lines with their smooth surfaces facing down and rough surfaces up. The positioning sleeves are adsorbed onto the soleplate by the magnetic adsorption device. The positioning sleeves are machined by batches by a grinding device in a direction vertical to the moving baffles, so that the positioning sleeves may be well kept constant in length.

Preferably, lateral baffles are provided at the two ends of both the moving baffles and the fixed baffles, respectively.

Therefore, the present invention features that a batch of positioning sleeves may be machined at one time and the positioning sleeves may be well kept constant in length.

**Brief Description of the Drawing**

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

Fig. 2 is a top view of Fig. 1.

**Detailed Description of the Invention**

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

**Embodiment 1:**

As shown in Fig. 1 and Fig. 2, a fixed baffle 1 is provided on one side of a soleplate 7; five moving baffles 3 in parallel to the fixed baffle 1 are provided on the soleplate 7, a lateral moving baffle is provided with a cylinder 6 that is associated with this moving baffle, and lateral baffles 5 are provided at two ends of the moving baffles; a magnet 4 is provided under the soleplate 7; and
the sleeves 2 to be machined are fixed in lines by the fixed baffle and the moving baffles, and then adsorbed onto the soleplate by the magnet 4.

Positioning sleeves, which are cut properly, are fixed by the fixed baffle and the moving baffles onto a plate in lines with their smooth surfaces facing down and rough surfaces up. The positioning sleeves are adsorbed onto the soleplate by the magnetic adsorption device. The positioning sleeves are machined by batches by a grinding device in a direction vertical to the moving baffles, so that the positioning sleeves may be well kept constant in length.
Claims

1. A tool clamp for grinding positioning sleeves for a built-in gearbox of a synchronous motor, comprising a soleplate and a fixed baffle fixedly connected with the soleplate, characterized in that the soleplate is provided with a plurality of moving baffles which are in parallel with the fixed baffle, at least one moving baffle is associated with an ejector device, and the height of the moving baffles is lower than the height of a sleeve to be processed; and at least one magnetic adsorption device, which can be used for adsorbing the sleeve to be processed onto the soleplate, is provided below the soleplate or beside the soleplate.

2. The tool clamp for grinding positioning sleeves for a built-in gearbox of a synchronous motor according to claim 1, characterized in that lateral baffles are provided at the two ends of both the moving baffles and the fixed baffles, respectively.