## Improvement of the top roller bearing of the drafting mechanism

During the operation and storage process of the top roller bearing of the drafting mechanism, due to various unfavorable factors, the rust of the outer casing is often caused, which seriously affects the stability of the product quality.

## There are several reasons for analyzing such reasons:

- 1 The temperature and humidity of the production workshop cannot be regulated. Some chemical fiber varieties require large humidity in production; or the production enterprises are in mountainous areas, semi-mountainous areas or coastal areas, along the Yangtze River, the air humidity is large, and the temperature difference between day and night in dry areas is large;
- 2 The temperature difference between the rubber roller workshop and the production workshop is large, and the position of the drafting and pinning machine is at the air outlet of the total air duct;
- 3 The storage time of the upper pin iron roller which needs to be exchanged due to the flat car is too long and the environment humidity of the storage place is relatively large;
- 4 Due to production and holidays, the time between opening and closing the car is too long, and the pre-heating time of the driving time is not enough, resulting in a large temperature difference:
- 5 The inner layer of the new apron is acidic, and the surface of the upper and middle roller bearing iron roller shell is exposed to acidic components.

<u>For rusted shells</u>, sanding is generally used to light the light. Over time, the more rusting and rusting, the faster and more serious, not only can not solve the problem, but increase the labor intensity, and seriously affect the product quality; especially in the spinning of fine yarn The

harm caused by the variety is even greater. To fundamentally solve such unfavorable phenomena, effectively ensure the stability of product quality and reduce labor intensity, we use SL6819A upper roller bearing sleeve to press hard aluminum lining rubber roller, and change it into outer diameter of 25.2mm instead of sL6825E middle and upper roller bearing iron. Roller, the effect is better. After the reformation, the middle and upper roller bearings have rubber shells, which supplement the elasticity between the upper and lower rubber rings during the drawing operation, strengthen the friction force, improve the synchronization of the rubber ring in the drafting operation, and eliminate the Slip, stabilizes the frictional boundary, ensures the orderly movement and constant speed of the fiber during the drawing process, and effectively improves the physical quality of the yarn.

After the reformation, the middle and upper roller bearing rubber roller replaced the iron roller. After our trial and comparison, the main indicators of the yarn quality Cv value and cVb value were improved.

After the modification, the bearing rubber roller is considered to be suitable for spinning various kinds of cotton yarns and adapting to various production environments, and the surface will not produce undesirable phenomena, which fundamentally eliminates the rust phenomenon and better reflects its Advantages; achieved both improved yarn quality and labor intensity, saving business costs; in the long run, it has great practicality