PRODUCT GUIDE

Chapter 8
Installation and maintenance guidelines
for TeraSpin top roller

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Research and Development is a continuous process. Hence, some of the information provided in this PRODUCT GUIDE may have become obsolete with TeraSpin's new developments in technology.

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TeraSpin is a business unit of A.T.E. Enterprises Private Limited, a company engaged in the service of the textile industry since 1939. TeraSpin came into existence in 2012 after A.T.E.'s takeover of SKF India's textile spinning component business. Since then it has been innovating and making continual improvements in quality and reliability in the service of spinning mills and machinery manufacturers around the world.

TeraSpin's product range consists of weighting arms, top rollers & cradles for roving frame and ring frame, spindle bearing units and complete spindles for ring frames and doubling frames. TeraSpin also offers customized upgrades for existing ring spinning and roving frames.

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Chapter 8
Installation and maintenance guidelines for TeraSpin top roller

Lubrication of top rollers

The new loose boss top rollers supplied by TeraSpin are always filled with TRG 5 and ready for use. Hence, no lubrication is required for newly purchased top rollers.

Top rollers	Lubricant	Quantity of lubricating/ bearing	Maximum speed (RPM)	Lubrication intervals Operating time	
				hours	Years
LP 302 LP 314 LP 315 LP 316 LP 317	TRG 5	Full lubrication	< 500	30000	Approx. 4
LP 303	Life time lubricated, maintenance free				

The grease filling should not contain any air cavities. In order to guarantee reliable lubrication, re-lubrication should be continued until grease emerges from the sealing shoulder.

Loose boss roller series LP 302, 314, 315, 316 and 317 are greased through the hole in the end cover. Series LP 303 loose boss rollers are provided with lifetime lubrication.

Cots for top rollers

Since there is a wide range of cot types and qualities to suit the many different mill requirements, no specific cot quality can be recommended. The most influential factors in cot performance are the spinning room temperature and humidity, the load used on the top roller and the material being processed.

Cots mounting and grinding

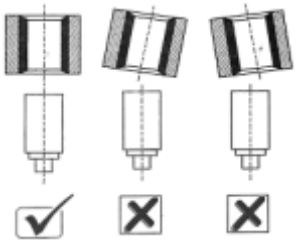
Arbor cleaning:

- ✓ Use MEK / acetone for cleaning of the arbor surface. Do not use petrol for cleaning
- ✓ Clean the grooves on the arbor surface thoroughly. Do not use a knife/tool to clean the grooves
- ✓ Ensure that cleaning agent does not enter the bearing portion in the arbor
- ✓ Ensure that arbor surface is free from oil/grease traces and mounting has to be done only after ensuring that the arbor surface is completely clean
- ✓ During remounting of cots, ensure that no traces of old rubber, oil or adhesive are found on the surface of the arbor

Cots mounting:

- ✓ Do not use any adhesive while mounting PVC core or Alucore cots
- ✓ Do not use a taper cone for mounting
- ✓ Use only the vertical mounting machine fitted with centering adaptor
- ✓ Mounting base plate should be cleaned properly to avoid any tilting of the arbor
- ✓ Ensure the arbor axis is in line with the cots axis (As shown in the figure below)

- ✓ During mounting and removal of cots, make sure that no axial pressure is applied to the ball bearing of the top roller
- ✓ Generally a slight chamfer is provided in the cots to have proper entering and seating on the arbor



Cots grinding/buffing:

- ✓ Grinding / polishing time should be around 6-8 seconds
- ✓ Maximum reduction of cots outer diameter should be 0.2 mm only during each step
- ✓ Grinding stones should be redressed after 1500-2000 cots grinding
- ✓ Max. 3 mm reduction in cot dia. from its original dia. (when newly mounted) is allowed. Within this diameter reduction range, no weighting arm height setting is required

Gauging of top roller cots after grinding

Thorough gauging of the top roller cots after fitting and grinding will help to ensure that no faulty top rollers are installed on the machine. The object of this chapter is to provide general information on the points to be observed in gauging top roller cots and on equipments available for this purpose. The detailed description of design and operation of each piece of equipment is beyond the scope of this chapter; such details are provided by the manufacturers of the equipment.

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