Case Study

TeraSpin's technical expertise proves to be a boon for a leading textile mill

This Mumbai based company has two manufacturing units in Maharashtra, covering the textile value chain from fibre to finished fabric. Their manufacturing set up includes ring and rotor spinning machines, high speed airjet, and rapier weaving machines followed by process house to produce finished fabric.

Challenge

Being composite unit producing dyed yarn and also finished fabric, the company is very conscious of the consistency of quality that it must maintain. The existing ring frames were installed in the year 2000 and are equipped with old SKF drafting type PK 225. Encountering frequent front roll lapping when using dyed synthetic fibre, the company felt the need to examine its drafting system for possible faults due to aging or otherwise. This is where it felt the need for a specialist to help them audit the ring frame.

Solution

This company has had a long association with A.T.E. and trusting the competence of TeraSpin specialist they asked us to do a technical audit of its ring frames. Replacement of the existing PK 225 with new PK 2025 drafting from TeraSpin was the expected result. The audit results however, were contrary to this presumption:

The parameters checked by TeraSpin during technical audit & the outcome are as below:

Sr. No.	Parameters checked	Observations & findings
1	Top roller load at all the 3 positions	Set to default values
2	Radial play in top rollers	Conformed to default values
3	Rotation of the top rollers	Smooth
4	Radius of the cradle	No deformation or damage detected
5	Condition of cradle springs & saddle springs	Found ok
6	Top arm pressure settings	Setting of the top arm pressure was disturbed
7	Top roller grease used	PD 2
8	Re-greasing schedule	Once in a year during new cot mounting
9	Condition of grease inside the top roller	All the top rollers, which were almost nearing to the greasing schedule, were running without grease

Observations and conclusions

1. Even after 16 years, all the top arms were found in good condition & loading on all the top rollers were as per standard
2. Condition of all the top rollers & cradles were also found good
3. No maintenance or replacement of components needed
4. TRG 5 grease should be used to re-grease top rollers for operational life of 30,000 hours
5. Weighting arms should be calibrated with height setting gauge at least once a year

Audit conducted by TeraSpin helped the company realise that the PK 225, the predecessor to PK 2025 is a robust system and requires little maintenance. There was no need of any replacement, thereby saving costs of the company.

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