Technical note: 034 **Dated: 27th Jan 2016**

Subject: Problem in 3 phase induction motor.

Incident in brief:

Once our motor re winder came with a peculiar problem. He was given a imported 3 phase induction motor for repairs. The factory informed him that equivalent motor was not available and some how this motor needs rectification.

The winder thinking that the winding must be faulty, carried out rewinding of the motor. He fixed back the motor but noted that the motor came to standstill when loaded. The load being normal for which the motor was designed.

He also noticed that when the motor was uncoupled, it ran normal.

He could not find a solution to this and hence came to the author for resolution.

Solution offered:

The winder was informed to check the condition of the squirrel cage rotor, which he had not done. He was told to check the rotor to see if any cracks were present between the bars and the cage. (Normally a growler test will notify any cracks.)

The rotor when checked minutely had cracks between the cage and the bars at two location. He brazed these cracks.

On fitting the motor back, he was happy to see that the motor could carry the load satisfactorily. The factory was happy so also the winder.

Conclusion:

Many times we come across such tricky problems, the solution is always there if we think out of the box.

Prepared by

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