

Editor's Point – Celebrating a CENTURY!

Century in CRICKET is a big achievement. We celebrate if a person completes 100 years of age, why not celebrate if an Industry completes 100 years? We referred to BOSCH having completed 128 years in our previous issue and this time we look at the KIRLOSKARS that has turned 125. It is also apt to remember S L Kirloskar, who led the company to great heights. He was born on January 15th, 1903. In the series on centurions, I struck a name TRANE, a company that was established by James Trane, a Norwegian immigrant to US in 1885. The TRANE is a name in HVAC (heating, ventilation, and air-conditioning) segment with double century to its credit. Not only it has completed over 100 years of incorporation, the company today has presence in more than 100 countries. The cellphone tape is a very common item in our day-to-day use. Have we ever cared to look at its invention that too is going to complete 100 years shortly. Let us wish on this first day of Jan 2015 that each individual, institutions and corporation celebrates 100 HAPPY years.

Company PROFILE: Kirloskar Brothers Ltd (KBL)

A shop was set up in Belgaum (Karnataka) town in India in 1888 to sell imported bicycles. Over a span of 125 years, KBL turned into a \$ 2.5 billion corporation with presence across world, providing complete fluid management solutions for large infra projects. The areas covered are - water supply, power plants, irrigation, oil & gas, marine and defence. KIRLOSKARS specialize in industrial, agricultural, domestic pumps, valves, hydro turbines, motors, oil engines, machine tools, tractors, and farm equipment.

With manufacturing facilities in U K, U S A, Netherland, Thailand, South Africa, Egypt, United Arab Emirate, Japan besides eight plants in India at Kirloskarvadi, Dewas, Kondhapuri, Shirwal, Ahmedabad, Coimbatore, Kolhapur and Karad make KBL a truly multinational. The Kirloskarvadi plant has Asia's largest Hydraulic Research Centre with testing facility up to 5000 kW and 50,000 m³ / hour. It is the only pump manufacturer in India and ninth in the world that is accredited with N and NPT certification by the American Society of Mechanical Engineers (ASME).

The Founder ENTREPRENEUR:

Laxmanrao was only 3-years of age and the youngest among five children in the family, when he lost his mother. Father Kashinath took care of cooking, clothing and education for the children besides toiling 10 hours a day to earn Rs 12/- a month. The young Laxmanrao was not interested in studies.

He had two hobbies – (1) to take apart any mechanical object to reason out why and how it works; (2) make sketches and paintings with chalk, water colours or charcoal at whatever surface he got. At 15, he insisted to join Jamshedji Jijibhoy School of Arts in Mumbai, to which Kashinath was not agreeable. Laxmanrao was counselled that no painter could earn sufficient money to manage family.

However, elder brother Ramchanrarao came to his rescue and Laxmanrao joined J. J. School of Arts in 1885. Spending two years, it was found that he was partially colour blind that forced him to leave painting but he continued with Mechanical drawing. Around this time Victoria Jubilee Technological Institute (VJTI) was established in Bombay and they advertised for the post of Drawing Teacher. The principal J P Phythian at VJTI felt that Laxmanrao was too young to be a teacher but he gave two drawings to judge his calibre. Having qualified, Laxmanrao was appointed Assistant Drawing Teacher at a salary of Rs 45 per month.

Making use of the college library, he read American Machinist, Scientific American, and Foundry journals and subscribed to these when he had some savings. He made best use of spare time and learnt to install, operate, repair, dismantle, and reassemble machines in the Institute Workshop. In addition, he undertook work of making machine drawings and job of repair- maintenance of machines outside college to enhance earnings that helped his father to repay education loans.

One day he saw a Parsi gentleman riding bicycle on Bombay road and learnt that it was imported from UK and costs around Rs 700 -1000 depending on make. He checked with his elder brother in Belgaum if the product could be sold to rich community over there; on confirmation, he bought bicycles in Bombay and shipped to Belgaum where his brother not only sold but also charged for teaching cycling. A success in test marketing, the letterhead of 'Kirloskar Brothers' was printed to take direct dealership.

An event of 1897 changed the track of career for Laxmanrao from job to full-fledged entrepreneurship when an Anglo-Indian was favoured with promotion by-passing him in VJTI. Leaving the job, he moved to Belgaum to take full responsibility of the bicycle shop. The business declined with time and the brothers tried many alternatives, where regular subscription to the three American journals was very helpful.

Next to the bicycles, they tried luck with marketing Wind Mills imported from the US; started manufacturing fodder cutter, undertook fabrication of steel furniture, door and window frames, electroplating for temple pillars in the state of Aundh etc. The success of fodder cutting machine motivated them to enter into more of farm equipment, but an effort to make a plough with steel share moved at a slow pace; the first 6-pieces remained unsold for over 2 years.

When sold, the feedback was low life of the tips of the share compared to those imported from UK. The cause was linked to need for chilling to enhance hardness. Again the remedy came from the Foundry journal. At this stage, an effort to seek Bank loan of Rs 10,000/- failed and this followed an eviction notice from the civic authorities to build Thalakwadi Housing Complex.

However, an old friendship of Laxmanrao with the ruler of the princely state of AUNDH came to their rescue. They were offered free land to their choice with financial support that led to the setting up of the first manufacturing complex, known as KIRLOSKARWADI. The initial struggle of an ENTREPRENEUR was carried forward to great heights by the next generations of ENGINEERS starting with S L Kirloskar, who was born on Jan 15, 1903. The subsequent story of growth can be relished from the autobiography of SLK, titled as 'CACTUS and ROSES', published by Macmillan.

SOLAR Mission {लक्ष्य सौर ऊर्जा}

SUN sustains life on earth. Its position with reference to the axis of earth regulates day-night time cycle and weather in different parts of the world. Think for a moment, do we have an alternate source of SUN or it is the only source of direct and indirect form of energy? Energy in some form or the other is associated with all living and non-living, and if that be so, everything around us is GOD (BRAHMAN) as per the Indian philosophy – “सर्वम् खल्वमिदम् ब्रह्म”.

The MAKAR Sankranti festival, falling on the 13th or 14th of January every year is dedicated to SUN; anything and everything that sustains life is called DEVATA (the one who Gives) and worshipped; in modern day terminology, we may call it “Solar Energy Day”.

A small section here is not sufficient to talk about the developments in Solar Energy, so we have planned to have a section in KNOWLEDGE hub of our RE-Structured IBF website (WAIT & Watch).

The KNOWLEDGE Hub

1. [CES 2015 at Las Vegas](#) Enjoy the developments in displays, mobile tech, virtual reality, automotive tech, entertainment, digital health and more from this year's Consumer Electronics Show at Las Vegas, NEVADA
2. [Modify Surface of Graphene](#) is a link to the November-December 2014 issue of *Advanced Materials & Processes* magazine of ASM International that talks about GRAPHENE.
3. www.ccubeconsultants.com – Refer for the BLOG “Business Excellence thru People” by Veerendra Jaitly.

About US : UDYOG Sanchetana is a FREE, monthly, e-Newsletter of IBF; character I in “IBF” represents – “Initiative (for) Skill Promotion and Training”, abbreviated as ISPAT. Bharti is the Goddess of Knowledge. Mission IBF is to promote awareness of Engineering and Entrepreneurship. We solicit your support in reaching out to every student, faculty, and institution of engineering. Support is welcome by way of contributions or advertisements. If you have an idea, share at ispatbharti@gmail.com

Editorial Advisory Group- Dr Amitabh Verma, Atul V & Abhishek Vyas; **Mg Editor:** Prof Virendra Grover; Associate Editor: Kirti Chopra

It's the age of FREE publications but we do not want to encroach upon your precious time. Our mail box is invaded with large number of un-solicited mails. Could be this e-Newsletter is one of them. When we use YAHOO groups, there are several common members. Please bear with us; we are in the process of introducing SUBSCRIBE / UNSUBSCRIBE options. At the same time, we wish to know the number of WILLING readers. If you are one of them, REGISTER at our site.

Let every day of 2015 bring NEW ideas that contribute to welfare of SOCIETY at large.

- Mg Editor