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**- Saurabh Agarwal,
Director, LSC Infratech**

are expanding, we will be ramping up our fleet size. We are planning to expand capacity to 3.2 mtpa and we would be adding a few more equipment to our fleet to handle the raw material.

According to Chadha, LiuGong has been able to maintain stranglehold in the market because of its good service support. Moreover, LiuGong has been able to reasonably price its products. “We have recommended LiuGong to many companies such as UltraTech Cement, Hindalco, etc,” a confident Chadha says.

Chadha finds the advantage of having LiuGong range in his fleet of equipment citing various reasons. He says, “I think

their products are maintenance-free. Their parts availability is also not a major problem. The only problem is the availability of their products.

LSC Infratech Ltd

LSC Infratech is into mining and stone crushing business since early 1990s. Although not into infrastructure sector, its products are the raw materials for infrastructure development. The company is based at the mineral rich Rudrapur in Uttarakhand and has six operations comprising units in Haldwani, Bajpur (2), Sitarganj, Sharapur, and Bharatpur. Similar units are being setting up in Rajasthan and Uttarakhand.

As into mining and stone crushing,

LSC Infratech has backhoe loaders from JCB, wheeled loaders from LiuGong, and excavators from multiple brands. For crushing also, the company has multiple brands. “We have a total fleet size of 50 which will be doubled in the next few years. This is because we are witnessing a huge surge in our business from next year onwards as we are building more plants,” says **Saurabh Agarwal, Director, LSC Infratech**. According to him, all these equipment are used for 15 hours a day and are in use for at least 330 days in a year.

Elaborating on his association with LiuGong equipment, Agarwal says, “LiuGong dealers approached us in 2009-10 and so far we have bought 20 wheeled loaders from them. By the end of this calendar year, we might induct another 15-20 more such products in our existing fleet. They are deployed across our six plants and will be done so in our upcoming plants too.” He adds, “Ever since our first purchase five years back, we made repeat purchases on a regular basis. So this is our 15th order in 5-6 years.

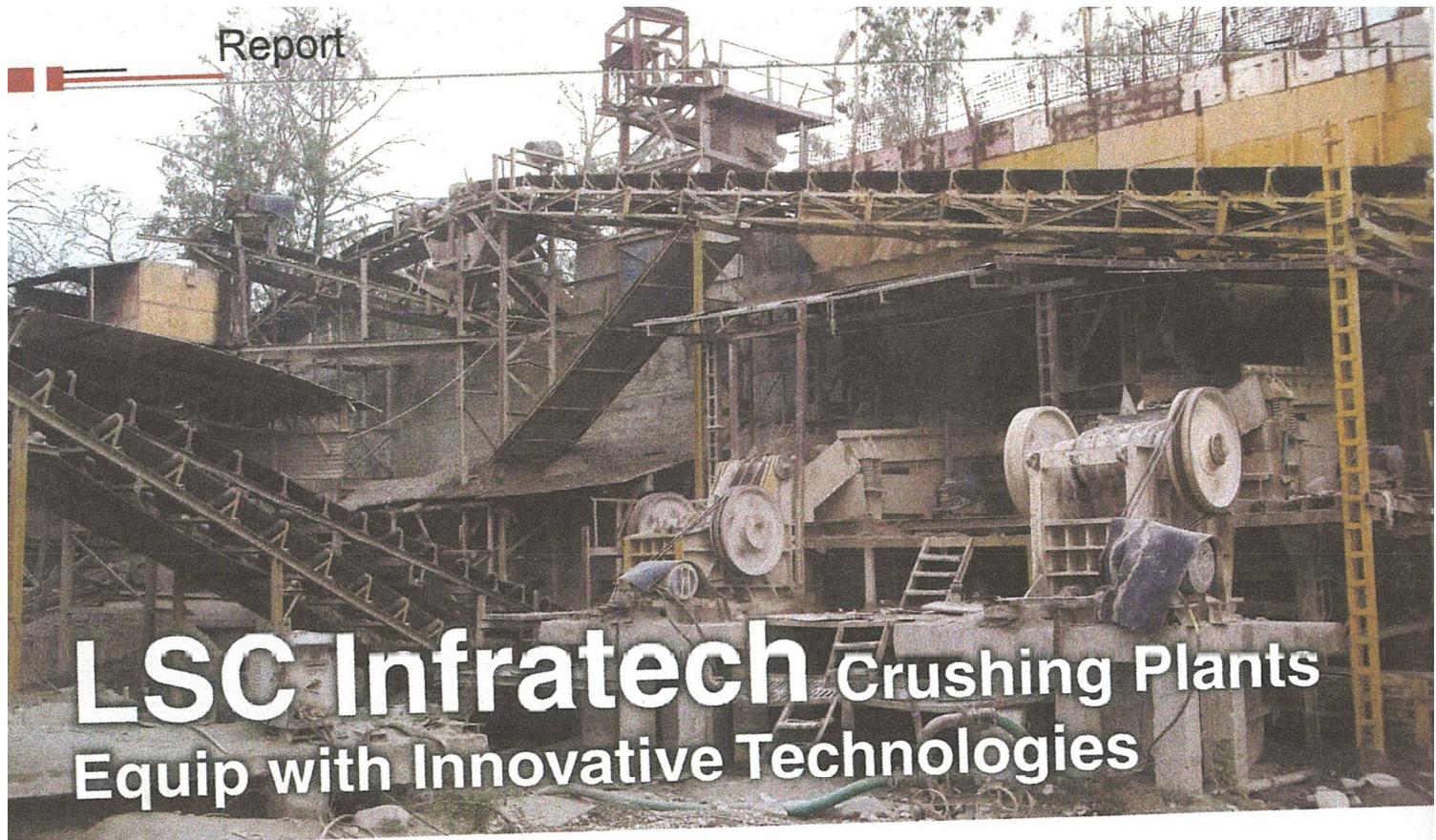
What really motivated LSC Infratech to gravitate to LiuGong at a time when there were other players too? Agarwal says, “Before LiuGong, there were hardly any genuine loaders which could serve our needs. To put it the other way, LiuGong basically filled the white space between 3-tonner loaders in the range of Rs 25 lakh and 5 tonners which were priced at Rs 1 crore and above. As our capacities required a product with a 5-tonner product at a reasonable price, we went for it. So in a way, it was a value-for-money proposition for us.

Agarwal feels that LiuGong products are world class. He adds, “The aggregates of the machines are excellent like Cummins engine, ZF transmission, etc. While their after-sales support is very satisfying, their spare parts availability is also good. Moreover, they are building the machines locally to demonstrate its commitment for the Indian market.”

Agarwal is so confident on the quality of the equipment when he says, “I have been an indirect contributor for them selling at least 50-60 machines across the country.”



LSC Infratech has so far bought 20 wheel loaders from LiuGong.



LSC Infratech Crushing Plants Equip with Innovative Technologies

Since its inception, LSC Infratech, which is one of the country's oldest crushing plant owners largely based in the northern parts of India, has been incorporating newest and innovative technology involving huge investment. The initiatives have paid rich dividends by ensuring maximum output entailing minimum cost to generate profits in the competitive crushing business.

The company currently owned four crushing plants in Uttarakhand ideally located in the Himalayan belt about 255 kms from the national capital. In addition, it also has one crushing plant at Saharanpur UP and one in the state of Rajasthan. As a matter of fact, LSC Infratech also boast of owning one of the biggest fixed crushing plant owners in India. It is worth mentioning here that the company launched its operation in 1991, when it started its first plant in Haldwani in Uttarakhand with toggle jaw, roller and impact crushers. However, over a period of time the rapidly growing road and other infrastructure projects across North India, encouraged LSC

Infratech to expand its operations in other parts of the state and it set up its second crushing plant at Bajpur in 2007, which was followed by one each plant at Ajitpur and Kishanpur in 2010. Now it commands a strength of four crushing plants in Uttarakhand with a combined production capacity of 4.5 million tons per annum (mtpa) of crushed aggregates and 2 mtpa of sand. The crushed aggregates and sand being lifted by infrastructure contractors in North India, covering states of Uttarakhand, Uttar Pradesh, Delhi and the surrounding areas of the National Capital Region covering bordering states of Haryana and UP mainly through roads and that railway ballast is transported through wagons rakes.

The raw materials for the plants including river bed boulders, is sourced from the nearby dry river beds during through the year barring monsoon period. The entire process included that the labourers from UK and other parts of North and Eastern India collect the river bed materials (RBM) and load it on tipper and

trucks for transporting the same to the crushing plants. The company is opting for manual process because excavators or other mechanical equipments for extraction of RBM are strictly prohibited in the area by the state government.



According to the founder and CMD, LSC Infratech, **Mr. Shiv Kumar Agarwal** "the rivers flowing through the hill state are the natural source of raw materials for almost all the small and medium crushing plants owners in the region. They are also the source of direct and indirect employment and business, for almost three thousand tipper truck owners transporting the

RBM to the plants here, daily for period of six months in turn contributing to the prosperity of the region."



Echoing his viewpoint, Director LSC, **Mr. Saurabh Agarwal** said that the RBM gets deposited, on the river beds, brought down by the heavy water current of numerous rivers, originating from the hills in this region. The state government allows regular de siltation of the river beds, by crusher plants owners here, at specified levels every year during non monsoon months, between January-May through removal of the RBM. The volumes of RBM to be extracted are decided by the state government following survey of the rivers. Lack of periodical extraction would cause accumulation of RBM which will restrict heavy flow of the river water during monsoon, resultantly causing heavy floods in the region.

The state government permitted RBM extraction from River Gaula, one of the rivers in the region at 4377901.05 cum in 2015. Extraction will have to be carried leaving 25% river width from the bank. Removal of very big boulders is restricted in the river from the junction of the hilly and plain area as they serve for dissipating energy of the flowing water. The permissible levels of extraction are based on assessment by Indian Institute of Soil & Water Conservation UK. RBM for LSC's oldest, Haldwani plant is sourced from River Gaula.

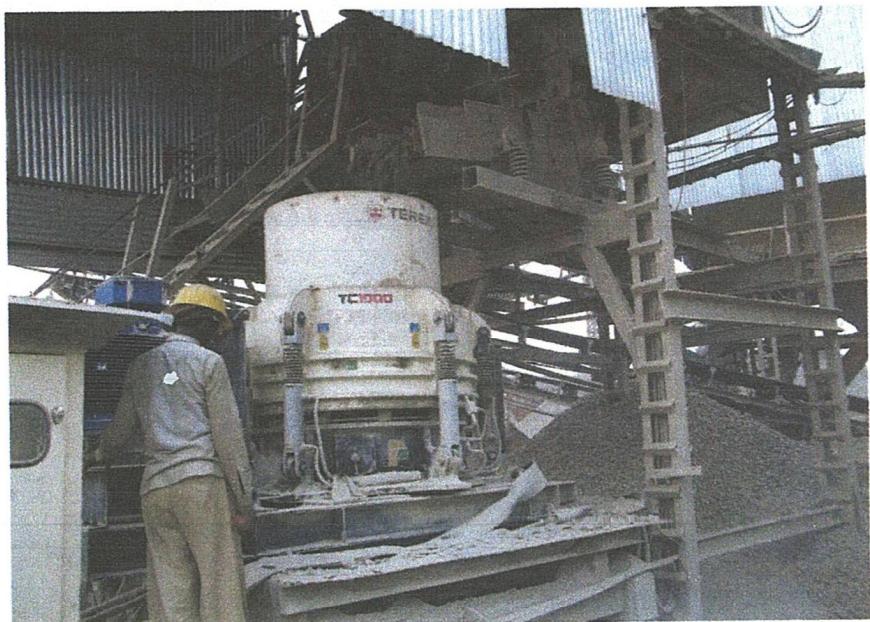
Materials for Bajpur crushing plant is from river Dabka while materials for Ajitpur are from river Nandhaur and for Kishanpur, it is from river Kosi in UK.

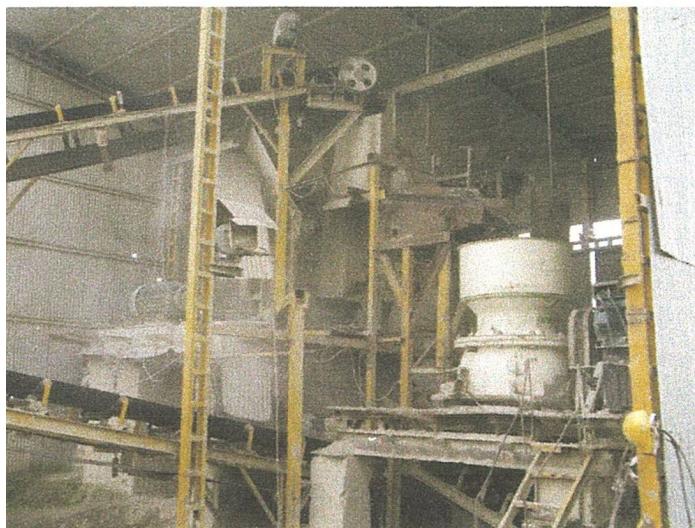
Elaborating on the production capacities, Mr. Saurabh said, "Our each plant produces 6000 tpd whereas the achievable capacity is 8000 tpd. To have higher and diversified production volumes and commensurate better crushing margins, in the highly competitive Indian crushing aggregates business, our plant produce aggregates in seven sizes, 5-8 mm, 8-17mm, 14-22mm, 35-42mm, 42-65mm, and 65-90 mm, mainly for new road projects."

He further explained that the configuration of each fixed plant comprises jaw- screen- cone and washing systems. Each crushing plants has between two to four jaw crushers of 150 tph from Delhi based CCM Ostem Projects and Terex. The jaw crushers have an opening between 36x 24 and can crush boulders between 500-600 mm. One Terex jaw, 42AY, 1410 can crush boulders of 1000mm. The plants have five to six screens between

three to four decks of 400 tph from South Indian manufacturer, Propel Industries, Terex and indigenously manufactured by LSC. Each three plants have two numbers of 220 tph cone crushers from Propel and Terex. This is excluding Haldwani which has one 220 tph cone crusher from Terex and one new 350 tph cone crusher from Propel, very recently taken by LSC for trial operations. Power for the plant is drawn from state electricity grid. However, to have captive backup, the plants are supported by 625 kva, Caterpillar and 750 kva Cummins diesel units.

In its entirety, there are two, B-series, 150 tph, CDE washing plants, one each at Ajitpur and Bajpur and two C-series, 75 tph at Haldwani and Kishanpur. Mr. Saurabh says, "We have been the first customer of these CDE Asia plants in India. The ROI for these machines has been in less than twelve months. The company gives complete solution by recycling 90-95% water used in our sand washing operation, truly addressing the concern of depleting natural resources such as sand and water. However, the main reason for choosing, CDE Asia for our





washing applications was as because, the plants are of high accuracy with great durability. The company is using high quality components and spare parts in its machines that it hardly needs any repair, for our kinds of continuous operations. Practically, it is a zero wear kind of machines. I have seldom called up the company for service till date as I didn't find any such need."

Going ahead, he adds, "Since, we yearn for continuous improvements in efficiency of our plants. Hence, we

are always open towards acquiring newer equipment and experimenting with them. In fact, large volumes of RBM, crushed aggregates and sand are handled by large fleet of LSC's own equipment. We have seven units of Volvo EC, 210, 20 tons tracked excavators, three PC 210, 20 tons, three, PC 300, 30 tons L&T Komatsu excavators and two JCB JS 220, 20 tons excavators. The company is also the biggest Liugong wheel loaders fleet owner with fourteen numbers of Liugong, CLG, 856, 5tons, 3cum and

two smaller ZL, 30, two units 3 tons, 1.6 cum wheel loaders. It has four, Tata-Hitachi, TWL 3034 hydrostatic wheel loaders. Continuous transportation of RBM from the stock yard to the crushing pit and also from the river source to the pit is all done by Indian Ashok Leyland tipper trucks. LSC has thirteen, Ashok Leyland's new range of U- 2523, 6x4, 14-16 cubic meters body tipper trucks, two, U-2516, 6x4, 14 cubic meter bodied tipper trucks and two numbers of U-3123, 8x4, 22 cubic meter bodied tipper trucks."

LSC will be acquiring additional numbers of two excavators, three wheel loaders, and ten tipper trucks. The new units will be deployed for its new upcoming, 500 tph crushing plant in Uttarakhand in 2015. The plant will be having similar configuration of existing plants involving two cones, five screens and three jaw crushers. "We will be acquiring equipment from OEMs providing best package in terms of pricing and prompt parts support. Since all material handling equipment at our plants operates for 300 days, between 12-15 hours a day, equipment reliability, lower maintenance and optimum performance, supported by appropriate product support is vital to us. For this, we prefer manufacturers,





having established manufacturing facility, marketing, sales and support network in India," mentions Mr. Saurabh.

Ensuring optimum operation of the plant and machinery and fleet management, the company has put in place a preventive maintenance mechanism as it has introduced ERP software to monitor the equipments. For higher equipment availability, Mr. Saurabh reveals that the

company prepares an elaborate check list of the components to be repaired during daily, weekly and annual in house maintenance exercise carried at its own four integrated workshops for each plant complete with inspection bays and engine overhaul facilities. Moreover, its upcoming crushing plants will also be provided with integrated workshops and other facilities as is the case of its existing ones. ▶

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