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# Anniversary

## Technology To The Rescue

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# Larsen & Toubro

**Arvind K Garg, Executive Vice-President and Head Construction & Mining Machinery Business**

Increasing adoption of Digital Technologies, Alternate Fuels, Cost Effectiveness, Custom Built Solutions, and Versatility of Machines, are some of the key areas that the industry is working on.

**Komatsu and L&T machines are built to deliver superior productivity in a wide range of applications.**

With state-of-the-art hydraulics, efficient engines, more efficient buckets and selectable operating modes, Komatsu machines deliver higher productivity over a long period of time. Selectable working modes ensure that our machines deliver the best output in every application. Energy saving training and guidance by L&T service team help our customers optimise machine utilisation and enhance productivity.

The L&T 9020 Wheel Loader now has a modified link mechanism, which ensures smooth penetration for better fill factor and higher production.

**Komatsu machines burn less fuel per Cu.m and produce more output in an hour compared to any other in the category.**

In the machines, Komatsu hydraulics and engine technology ensure that every ounce of fuel burnt/energy produced is used for the work done by the equipment.

In the latest-generation PC210LC-10M0 Hydraulic Excavators, Komatsu has pushed this to a new high – they have been able to reduce ancillary power loss of engine by 95%, thereby ensuring Net HP and Gross HP stay at almost the same level.

Further, the ME (more efficient) series of buckets are designed to cut through the earth with minimal effort, thereby reducing cycle time and significantly enhancing work done per hour.

**Telematics has played a significant role in monitoring the machines, and the current phase has accelerated its penetration and usage by customers.**

Komatsu's Machine Tracking and Management System KOMTRAX enables complete machine monitoring, starting from basic information like location, working hours, travel hours, and fuel level to machine health, abnormalities, working modes, load condition, energy saving guidance, and geo-fencing.

Our digitally enabled after-sales support program EQUIP-CARE seamlessly integrates machine-initiated service requirements such as scheduled services based on SMR, caution/error code-based service requests and service requests from customers. Unlike many other customer support systems, EQUIP-CARE is designed to leverage digitalisation with a strong human interface.

**Operator's ability to work on the machine in a safe and efficient manner will ensure best returns to customers.**

Komatsu machines are equipped with ergonomically designed, feature rich, comfortable, and safe cabins. Top guard, front mesh guard, ROPS capable cabins provide a very safe environment for operators.



## HIGH PRODUCTIVITY. HIGHER EFFICIENCY.



PC71



PC130



PC210-10M0



PC300



PC350



PC450



D85



GD535



### PC130

The Robust Machine

**Quality - Reliability - Durability**

L&T presents a formidable range of high-performance Komatsu Hydraulic Excavators from 7 ton to 45 ton -- PC71 | PC130LC-7 | PC210/PC210LC-10M0 | PC300LC-8M0 | PC350LC-8M0 | PC450LC-7, D85 Crawler Dozer and GD535 Motor Grader for the Construction and Infrastructure Sector. Cutting-edge technology, Intelligent hydraulics, Powerful engine and Well-engineered structures enable the machines deliver outstanding productivity and reliability. KOMTRAX, the revolutionary tracking system from Komatsu, gives the users a distinctive edge in pushing efficiency by remote machine management. With its nationwide network of Dealerships and Service Centres, L&T ensures best-in-class support for Komatsu machines in India.

**EQUIP CARE : 1800 833 9990**

Larsen & Toubro Limited  
Lakshminarayan Complex, First Floor  
10/1, Palace Road, Bengaluru -560 052

Tel : 080 4040 1795 / 1790 E-Mail: CMB@larsentoubro.com

Visit: [www.Lntcmb.com](http://www.Lntcmb.com)   L&T Construction & Mining Machinery



**L&T Construction & Mining Machinery**

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Regd. Office: L&T House, N. M. Marg, Ballard Estate, Mumbai - 400 001 CIN: L99999MH1946PLC004768

The latest KOMTRAX and LCD monitor in the cabin ensure continuous guidance and information flow for efficient use of the machines. Weight adjustable seats, well positioned adjustable arm rests, and softer joysticks, ensure fatigue-free operation.

**It is not uncommon to see a Komatsu Excavator working in tough applications for over 36,000 hrs and still going strong.**

Komatsu and L&T machines are built tough from inside out. The high quality of steel, thickness of plates, cast-end fittings, and internal reinforcements on the structure, make our machines capable of handling tough applications over a long period.

In Indian operating conditions, the Komatsu Mining Dumpers such as HD785 and Komatsu Mining Shovel PC1250, have crossed 60,000 hrs and 50,000 operating hours, respectively, with over 90% availability.

**Komatsu machines have long service intervals.**

Closed centre load sensing systems, advancements in filtration technology have enabled our machines to provide long service intervals for filters (up to 2500 hrs on hydraulic filter), lubricants (up to 1000 hrs) and hydraulic oil (5000 hrs).

With KOMTRAX, the machines continuously communicate machine use and health parameters, which help us to provide after-sales service in a planned, preventive manner, for minimum downtime incidents. The Equip-Care program helps us schedule these services based on machine working hours, giving sufficient time to plan and carry out periodic, mandatory services on time, thus enhancing the uptime and life of our equipment.

**From simple scheduled services to AMCs and FMCs, we provide a range of after-sales support to customers.**

Under FMCs, we provide complete after-sales support solutions including spare parts planning, daily maintenance, preventive maintenance, and repairs of our fleet. Full Maintenance Contracts with predefined hourly rates and payment schedule help customers get assured machine availability year-after-year and plan their OPEX.

To ensure higher resale value for our Hydraulic Excavators, we have introduced Suraksha 10,000 and Kavach programmes, which offer extended warranty on major components and even the work equipment for 3-4 years of operation, along with free scheduled service support, through the tenure. These measures help customers derive maximum value from our machines and improve their ability to execute projects on time, while maintaining the health of the machines.

**We commissioned the largest electrically operated shovels in India during the lockdown period, besides several other mining equipment.**

During the first wave of the pandemic, we could deliver machines as per the schedule and even carried out erection and commissioning at sites under extremely tough and trying circumstances, within stipulated timelines. In a few cases, commissioning support and expertise were also provided remotely.

We also extended the warranty period for machines sold in the immediate months preceding the lockdown, to support our customers for the period during which their machines had to be kept idle on account of the lockdown.

We are committed to providing the best possible support to our customers in these challenging times. Our dealers are fully involved in deputing their service teams to various sites to take up machine maintenance and mandatory services. Our central warehouse in Nagpur is ensuring that all parts are despatched to stocking points, well in time, to avoid any machine downtime at major projects.

**We have an active Used Equipment Business to help customers replenish their fleet with the latest models.**

Our old/used machines are refurbished and sold to customers looking for such equipment because of the nature of work involved or owing to liquidity issues. Over the last couple of years, we have seen good traction for this program, and have plans to scale it up.

For customers who have projects of 3 to 4 years and would like to have a guaranteed exit option, we are offering

customised buyback packages. We have also been renting our machines with special attachments to select customers, in a limited manner.

**Restart of construction activities will see a revival of demand, which would help us in clocking growth of 4-5% over FY 20-21.**

FY 2020-21 was a mixed bag for us. The Mining Equipment Business saw an excellent year, during which we secured many large orders from valued customers (namely, Coal India, Tata Steel, Shree Cement, VPR Mining etc) for large mining machines like the Komatsu HD785 Dump Trucks, D475 Crawler Dozers, the PC1250 & PC2000 Hydraulic Excavators, and we also delivered the electrically driven Komatsu PC3000 Hydraulic Excavators to South Eastern Coalfields Limited.

However, sales were adversely impacted during April-Aug 2020 due to the nationwide shutdown. We, however, witnessed a sharp rebound from September 2020 onwards, which helped the annual demand recover to FY 19-20 levels. Since the situation reached near normal during the Q4 of FY 20-21, demand was projected to grow by 15-20% in FY22, but unfortunately, the second wave and the consequent lockdowns again impacted demand during Q1 of the current year. Construction activities are now restarting, so we are optimistic of demand rising once again.

**Development of world-class infrastructure will continue to be the cornerstone for India, as the country moves towards fulfilling its USD 5 trillion economy ambition.**

In the longer term, India is widely regarded as an economy that offers tremendous promise – its demographics, technical acumen, spirit of innovation, mineral resources and manufacturing capabilities are huge national strengths. Sustained reforms and Infrastructure development hold the key to realising our full potential. This would translate into tremendous growth of the Construction & Mining Equipment industry, over (at least) the next decade.

Our industry association iCEMA engaged the Boston Consulting Group sometime back to prepare the 2030 CE Vision Plan.



Their report forecasts that CE volumes will grow to three times the current levels by 2030 in India, with the country emerging as possibly the 2<sup>nd</sup> largest CE market globally. By then, this growth would dramatically improve industry attractiveness, leading to huge investments in R&D, innovations and financial and material resources.

**Increasing the local content in machines will be another imperative for our industry in line with the Atmanirbhar drive of the Government.**

We foresee the global leaders in this space increasingly entering into tie-ups with local companies to introduce contemporary technologies, investing in upgrading capabilities, and adding to their manufacturing capacities.

iCEMA is working closely with the Government to introduce conducive policies for component suppliers to set up manufacturing facilities in India, for local consumption as well as exports. This year, our industry will also be transitioning to CEV-IV emission norms for wheeled machines. In a few years, Off-Highway equipment will also move to CEV-IV emission norms and our industry will have to gear up for the same.

With the world moving towards electrical and exploring hydrogen-powered vehicles, developments on excavators in this direction are likely to be the next technology frontier.

Mandating operations by certified operators, skilling of youth and helping them get employment, enhancing the life of equipment, bringing down operating costs, improving fuel efficiency, reinforcing safety, are also areas of focus in our industry. Our Infrastructure Equipment Skill Council (IESC) has made a beginning in this direction, but we have a long way to go.

**Despite the pandemic restrictions, our mining equipment continued to be operational in the Coal, Iron ore and Limestone sectors, which are key to meeting the country's energy and infrastructure requirements.**

Most of the mining sites across the country continued to operate under the Essential Services Maintenance Act. Our After-Sales Support team extended parts and service support for machines operating at these mining sites, and maintained operations close to normal capacity under the difficult and challenging circumstances.

Since most of these fleets are supported by long-term maintenance contracts; our dedicated site team of engineers and technicians extended the fullest support to the machines. Most of the construction sites were operational, but at a lower scale due to various constraints. Our dealer partners too continued their operations to the extent possible and as allowed by the local administration.

**L&T stepped in to support various government hospitals by donating imported Oxygen Generators for 100 -150 bed hospitals and set up isolation units across the country for employees.**

Besides complying with the safety protocols mandated by customers at project-sites, we have ensured strict adherence to Covid Appropriate Behaviour (CAB).

Though we did witness a few Covid positive cases from sites, our team members displayed tremendous determination and resilience to maintain the after-sales services. With support from customers, separate accommodation has been

arranged for our key support staff to enable them stay close to project sites.

We have taken various measures to build the confidence and motivation of our team members by providing them additional insurance cover, specifically related to Covid, along with free education for surviving children, jobs for surviving spouses and other such measures, in case any of our employees succumbs to the virus.

We have set up quarantine facilities at important locations across the country. Our leadership teams have been maintaining a constant vigil and communication with the field staff to keep their morale high and are responding quickly with help and assistance whenever the need arises. Our HR team is monitoring the health and well-being of employees and contractual staff on a daily basis.

We have contributed handsomely to relief funds, ensured that our construction workmen were well provided, and we helped the local communities where we operate through initiatives like distribution of food, masks, ventilators, etc.

We have tied up with medical practitioners for on-line consultation for our staff, have arranged medicines and oxygen in case of emergency, held vaccination camps, and are running educational campaigns to allay fears of vaccination.