Construction World Award for L&T-Komatsu

Construction World, one of the leading publications capturing the growth and trends of the construction and allied industry, has adjudged M/s. L&T-Komatsu Limited as the second fastest-growing construction equipment company in the country in 2009 and bestowed on it with top honours.

At a glittering event held in Mumbai recently, the Construction World trophy and citation were received by Mr. S.R. Subramanian, Chief Executive, L&T-Komatsu Limited from Mr. Kamal Nath, Minister for Roads, Transport & Highways, Government of India. Leading players from the construction and infrastructure sectors from across the country were present during the event.

The Construction World awards were instituted by ASAPP Media Information Group and seek to recognize and reward companies which adapt world-class practices in their workplace and strive for new benchmarks in performance. This was the seventh edition of awards and has been the result of an extensive study conducted across the industry by an expert panel.

L&T-Komatsu Limited is a joint venture which was set-up in 1998 between Larsen & Toubro Limited and Komatsu Asia Pacific Pte. Ltd., Singapore (a wholly owned subsidiary of Komatsu Ltd., Japan). L&T-Komatsu Limited has its manufacturing facility in Bangalore and comprises Machinery Works and Hydraulics Works. The company has been a trailblazer in supplying technology proven and superior quality Hydraulic Excavators in the 7 ton to 60 ton weight class. L&T-Komatsu excavators are highly popular across all user segments and in varied applications. Spare Parts and Service Support is provided by L&T’s Construction and Mining Equipment Business Unit through its nationwide network of Offices, Service Centres and Dealers.
Presenting the Largest Selling PC200-6 with Innovative Features

L&T-Komatsu PC200-6 is India’s No. 1 and largest selling Hydraulic Excavator in 20-Ton class. Since its introduction, over 8000 machines are in operation in varied applications.

The machine has carved a niche for itself, due to,

- High Productivity at lowest fuel consumption per cubic meter excavated,
- Efficient Operations in varied applications ranging from General Construction to Mining and special applications,
- ‘HydrauMind’ Intelligence, Power & Ruggedness, Reliability and Operator Comfort all of which are rolled into one – yet simple to operate,
- Countrywide after-sales support network and full-fledged Service Centres at strategic locations,
- Low operation and maintenance costs in addition to easy maintenance, and
- Long service life of high value and critical components.

To further improve performance, productivity and convenience and to give customers better value for their investments, L&T-Komatsu PC200-6 now comes with the following additional features:

**Auto Decel:** With this feature, the engine speed automatically drops if the machine is idle for more than 4 seconds. This results in considerable reduction in fuel consumption, and lower operating costs.

**Pre-Cleaner:** Turbo-type Pre-Cleaner has been installed to improve the life of air cleaner element and quality of air intake into the engine. This increases the life of the engine and its parts.

**Radio:** The operator cabin has been fitted with a Radio with AM / FM.

**Suspension Seat:** The suspension seat adjusts the height based on the weight of the operator, thereby making it convenient and comfortable to operate and improving overall productivity. Operators will find the seat suiting their physique, besides giving easy access to control levers to ensure the best operating position at all times.

**Guard for Air Hose:** A metal guard has been provided to protect the Air Hose body in the event of inadvertent step on.

**Engine Under Cover:** To protect the fan blades from damage in the unlikely event of a stone hit, a metal cover has been provided below the fan.

**Reinforced Arm:** Bottom guards have been provided on the Arm for protection while handling blocks/boulders, thereby increasing the life of the Arm.
Reinforced Mounting Zone:
The Boom-Arm mounting zone is reinforced for improving the life of the attachment.

Reinforced Engine Hood:
Corner cups are added to the Engine Hood to strengthen the mounting area and improve its sturdiness.

Besides the improved features which makes the PC200-6 machine a great product, the following options are available on the machine as well:

Air Conditioner (Cooling): Option for air-conditioning the cabin for more operator comfort.

Fuel MAG: Improves the quality of diesel injected into the engine. Can be fitted at factory/retro-fitted in the field.

Rock Breaker Adaptation Kit: Available for fitment at factory/in the field.

2.9M Arm: For better reach in special field applications, 2.9M Arm option is available and can be fitted at the factory/in the field.

Breakthrough in Brickfield

In the continuing drive for new applications for L&T-Komatsu PC71 Hydraulic Excavator, the brickfield application in the Eastern Zone holds a new market. Bongaon, located in 24 Parganas and close to the Indo-Bangla Border, is the hub of brick kiln and supplies high-quality bricks to Kolkata and suburbs. The bricks are in high demand due to availability of alluvial soil in this area.

In recent times, the 7 Ton-class excavator is gaining popularity in brickfield soil handling operation thanks to the economic viability. Construction Equipment Business of L&T, Kolkata alongwith its dealer M/s. Tripti Engineering Services organized a road show on 14th August 2009 in the brickfield owned by Paul Traders in Bongaon. Mr.Binoy Singha, Secretary, Brickfield Owners’ Association participated in the show. Several owners who attended the road show were impressed by the PC71 machine’s versatility in brickfield operations and adaptability to slushy ground conditions. L&T has already opened its account in this area for the brickfield application.
On the outskirts of the temple town of Madurai, two L&T-Komatsu PC200-6 Hydraulic Excavators are furiously at work in a blue metal quarry of M/s. Gomathi Sankar Constructions, under the watchful eyes of its Managing Director Mr. V. Senthil Kumar.

He closely coordinates the loading at the quarry as well as the progress at the crusher plant and meets up with the supply schedules of a canal project nearing completion at Pudukottai. Mr. Senthil Kumar has been supplying gravel to a number of projects in the recent years from roads and highways to railways and bridges spread in Tamil Nadu area.

Not many would know that Mr. Senthil Kumar began his career with an automobile company in Delhi. He moved over to Madras and subsequently to Madurai to work for another dealer. Meantime, this arts graduate had completed MBA programme from Madurai Kamaraj University and was looking for a change.

He got a good break with an opportunity to join his uncle who was a Panchayat Member and C-class contractor with Tamil Nadu PWD. The uncle was already undertaking village roads and branch canals. Under his guidance, Mr. Senthil Kumar joined M/s. Sankara Blue Metals, which had just then acquired a quarry. This gave him sufficient exposure in a new industry as they went on to purchase L&T-Komatsu PC200-6 Hydraulic Excavator and began operations. They added a crusher plant in 2007 and purchased two more similar machines.

How did he choose L&T-Komatsu machines over others? “Well, I did my own assessment of the brands available in the market against my requirement. I thought L&T-Komatsu would be good. And it paid off,” he admits gleefully. There was no looking back for him as he enjoyed acquiring more machines and putting them to strenuous job work. “L&T Madurai team has been helpful in putting together a maintenance schedule for each of my machine, which our boys have been taking care of.”

Besides the brand, it is the technology prowess of L&T-Komatsu PC200 which astounds Mr. Senthil Kumar. “The machine is my true friend and is surely a winner in handling blue metal. I am also happy with the service back-up of L&T. As of now, I haven’t faced any major problem. I have invested in good machines and getting best returns,” he says in self-admiration.

The success in business prompted him to start his own company M/s. Gomathi Sankar Construction with own quarry and crusher plant as well. He is planning to upgrade the crusher to 250 TPH from 150 TPH. He is also planning to diversify the business interests by setting up property division which shall take up building apartments as well as individual houses in smaller towns.

Some of the important projects for which his supplies were involved include Alangur-Kovil Road, Natham Road and a canal project funded by World Bank. Mr. Senthil Kumar lays emphasis on customer service and so makes it a point to regularly seek feedback from the projects on the quality of blue metal and supply time. “Once you streamline, things are bound to work. You only need to keep a constant check to doubly make sure if everything is going alright,” says Mr. Senthil Kumar with a big smile.
Komatsu technology is reliable:  
Mr. S.P.A. Sivasundaravadivelan

“I like Komatsu machines. They give me enormous returns,” remarks Mr. S.P.A. Sivasundaravadivelan, Proprietor, M/s. Siva Earthmovers and a leading contractor from Salem. “Its hydraulics is reliable and the machines have given me 10,000 hours of hassle-free service,” he adds delightedly. He presently owns L&T-Komatsu’s six PC200-6 and two PC300LC-7 Hydraulic Excavators.

With mining contracts being his forte, Mr.Sivasundaravadivelan has deployed PC200-6 Hydraulic Excavators in limestone mines at Chettinad Cements, Madras Cements and Birla Cements in various parts of Tamil Nadu. The machines have been working to his fullest satisfaction. He says that Komatsu machines deliver full value for money. “With regular maintenance and using trained operators, the machines have surely a longer life,” he hastens to add.

His father, Mr. K.M. Arumugam, was an established contractor and had handled labour and transport contract in Burn Standard’s Magnesite Mines. Later, he had moved over to earthwork contracts. Mr. Sivasundaravadivelan joined his father in 1988, soon after completing his diploma in mechanical engineering from Salem.

“The practice then was to use loaders and dozers to move overburden in most sites. This was due to absence of small-size shovels”, says Mr. Sivasundaravadivelan. The arrival of lower-end excavators in the 20-ton category gave a new burst of activity. Their first acquisition was L&T-Poclain 90 which gave them new perspectives in excavation. Later on, he purchased a Komatsu Hydraulic Excavator through a local importer and was convinced of its superior technology. Though the machine was excellent, the substandard post-sales service provided by the importer was a setback.

He awaited eagerly for Komatsu to bring in a new machine. And then when PC200-6 Hydraulic Excavator was launched by L&T-Komatsu Limited, Mr. Sivasundaravadivelan was one of the earliest to go for it. His conviction paid off as he celebrated his success with the machine moving up to new assignments, which included digging deep foundation for Salem Steel Plant in constrained area to site grading system for Madras Metro Development Authority.

Over the years, he shifted to mining contracts, for which payments were made on ‘per ton of mined ore’ basis. He worked on limestone projects in Karur, Ariyalur and Pennadam. “The infrastructure take-off has brought new opportunities, but I prefer the overburden removal contracts. I look forward to take up more in future”, he says. He is a registered contractor with Tamil Nadu’s Public Works Department as well as National Highways Authority of India.

Mr. Sivasundaravadivelan’s interaction with L&T’s Product Support team on Service issues and Parts supply has always left him satisfied. He feels the combination of Komatsu’s technology and L&T’s after-sales service have given a good edge to the products. All his products have been covered under Annual Maintenance Contracts, which make things easy for him.

Interestingly, Mr. Sivasundaravadivelan is an unofficial ambassador of L&T. He has found enough reasons to recommend the machine to his cousins and friends who are in road contract and allied business. He is enamoured by Komatsu technology so much that he has struck a long-lasting relationship with L&T Finance to fund his equipment purchase.
“My wife Vasanthamani is the backbone of all my operations,” remarks Mr. P. Paneerselvam, Proprietor, Sri Periyananayaki Amman Earth Movers, Udumalpet, even as he introduces her with pride. It is without doubt that his wife has been taking a lead role in the company by managing the entire backend operations.

The Paneerselvam couple was one of the earliest to have moved into the hiring segment in Udumalpet area. Sensing a good market for the hired machines in view of the growing demand for road projects, canal works and land development; they began to invest in new machines and expand support facilities.

Presently, they own three L&T-Komatsu PC130 and one PC71 Hydraulic Excavators besides 10 ton tippers, tractor dozers, loader backhoes and even a trailer, to transport the machines. “PC130 machines are outstanding. They give us both power and productivity. In fact, my machines are engaged throughout the year. One of them has crossed 5500 hrs,” says an overjoyed Mr. Paneerselvam.

Though the hiring market is getting tougher, it is their reputation that has sailed them through. Thanks to their machines which give the customers hassle-free performance and the operators they provide who are very proficient. “It is because of this that our clients prefer to come back. We get a lot of repeat orders,” says Mr. Paneerselvam, who personally interacts with all customers on their job applications and target schedule.

“Our operators are the best we have in the hiring industry. They always work to get the best out of the machine. They take care of machines always with periodical maintenance and mandatory checks” claims Mrs. Vasanthamani who scrupulously documents the data in the manuals provided by L&T for the machines. “We also seek expert help which is why we have gone in for annual maintenance contracts for all machines” she adds.

In fact, they have created a unique model in Udumalpet, by establishing an all-inclusive campus. They live on the same campus which also provides for office space, dormitory accommodation for the operators, a local workshop for welding and stocking spares, and parking area for the equipment. Now, with the spread of business to newer areas, they have decided to add 24/7 help centre to attend to customer complaints.

Going down the memory lane, Mr. Pannerselvam remembers his difficult days in a modest job at a local textile mill in Pollachi. It was his secret ambition to have a business of his own. He decided to step into hiring business after acquiring a tractor dozer for agricultural purposes in partnership with a friend. Buoyed with the encouraging results, he purchased another tractor dozer in 1997.

But it was only after marriage and post 2000, that he mustered courage to quit his job and plunge headlong into the business. He learnt that there were a slew of projects coming up in road development and canal works and purchased a few loader backhoes which won him good business. As he began to expand business, he was among the first to have opted for the crawler machines.
He has also been repaying equipment loans promptly for which he enjoys special financing options.

Some of the important jobs for which Mr. Paneerselvam had hired out the machines include Udumalai-Palladam road widening, construction of Palani bus stand, clearing landslip for Ooty Corporation and water treatment plant in Tirummoorthimalai. He has also coordinated the marathon sand-mining for 1000 hours at Palani and the 100 km supply channel. His PC71 has been deployed in a tea estate in Ooty for a long period.

The Paneerselvams share their success with their team of 100 people comprising operators, technicians, mechanics and back office staff. His nephew Mr. Premkumar has the last word, “The happy customer is our motto.”

L&T has changed my fortunes: Mr. K.Rajeshwaran

The magic of L&T-Komatsu technology continues to reach out to new entrepreneurs even in distant places. One such example comes from Nagercoil in southern most tip of Tamil Nadu where L&T achieved a breakthrough. Mr. K. Rajeshwaran, Proprietor, M/s. SS Blue Metals is the beneficiary. A man of humility and simplicity, Mr. Rajeshwaran has been in the quarry operations since 1992. He had employed over 50 people and was into manual mining at Arumane area where he owns a blue metal quarry.

Over the years, things began to sour. The dwindling profits, increased operating cost, lack of gang strength deterred him. It was then that he decided to step into mechanization and purchased an L&T-Komatsu PC130 Hydraulic Excavator. His revenues began to look up as the machine helped him in shoring up productivity. He felt the need for another machine to work in the crusher and hence acquired L&T-Komatsu PC200 Hydraulic Excavator.

These days Mr. Rajeshwaran is a happy man. He says, “The L&T-Komatsu machines have changed my fortunes. They have ensured that I could lead a decent life. The machine’s life is good and so is its productivity. I have a trained operator to maintain the machine well at all times. I am pleased to recommend the machine to some of my friends who are keen to enter into quarry business.”

Presently, Mr. Rajeshwaran is busy negotiating a deal to buy another quarry in Kanyakumari. He is in fact looking forward to expanding operations and seeks support from L&T. Mr. Rajeshwaran hails from an agricultural family with his father growing bananas on a large scale. But Mr. Rajeshwaran wanted to play on his own turf.

Mr. Rajeshwaran has a good order book from his customers. He supplies blue metal to nearby construction sites, drainage and water projects, road and bridge works. He has around 20 people working with him now. Among the applications he has tried is the rock breaker attachment on both the machines and found them satisfactory.
arsen & Toubro heralds the arrival of the revolutionary Komatsu GD555-3 Motor Graders in India. A marvel of Komatsu’s cutting-edge technology, this machine is poised to redefine utility equipment in road construction as well as mining haul road maintenance. The GD555-3 Motor Grader is matchless and outperforms all others in its segment on productivity, fuel efficiency, operator comfort and an immaculate job performance output. A dream machine that incorporates the ingenious Komatsu moldboard geometry, that forms the full line-up of advanced construction equipment, and delivering technological innovation with exceptional value.

High productivity and precision are the hallmark of Komatsu GD555-3 Motor Grader. It derives power and efficiency from the turbocharged and air-to-air after-cooled SAA6D102E engine. The engine develops 160 HP/119kW output providing excellent tractive effort with good fuel efficiency and meets the most stringent emission norms. The electronic overspeed protection helps prevent engine and transmission damage from premature downshifting and grade-induced overdrive.

Eight forward and four reverse speeds give the operator a wide operating range. With four gear selections below 9.7 kmph, the operator can precisely match the working speeds to job conditions for maximum productivity in earthmoving applications. The lock-up torque converter provides smooth power for grading and speeding on roads or for snow removal.

Komatsu’s power shift transmission provides total power shifting as well as inching capability and automatic shifting in the higher ranges. Excellent serviceability is ensured with the use of large hinged doors to the engine room, maintenance-free all-hydraulic disc brakes and advanced self-diagnostic system. Power train components feature a modular design so that the engine, transmission or final drives could be removed independently for quick service.

Excellent visibility from the elegant operator cabin helps improve operator confidence and productivity in all grader applications. Implement controls are designed to reduce operator fatigue. They feature short lever throws and low effort in both directions. Properly spaced control levers and short lever allow the operator to use multiple controls with one hand. Responsive controls irrespective of load and travel speed enables the operator to select optimum speed and blade manipulation to create an uncompromising job profile. Electronic monitoring system checks important machine systems and gives the operator with three levels of warning. Extra leg and foot room creates a spacious open cab. Air-conditioner is available as an option.

A simple blade suspension system allows good forward visibility. Well-positioned blade linkage provides an unobstructed view of the moldboard and the front tyres. The blade suspension bolstered with excellent manoeuvrability contributes to highest productivity in this category. The blade length is 12 ft and it has bronze alloy guides to ensure a long service life. The tapered engine hood provides good visibility of the rear machine. Low front nose ensures all round frontal visibility.

A prolific value for money, the GD555-3 machine is all set to emerge as the most precise and reliable Motor Grader with its peerless power, pace, feature and grace as the trendsetter in the Indian road construction and mining industry.
PSD Deploys Service Van in EMTA Site

At Karnataka EMTA Coal Mines Limited in Chandrapur, L&T’s Product Support Department-Nagpur has deployed a Service Van in the field to reduce maintenance and repair time. This is to take care of the Full Maintenance Contract of 46 nos of Komatsu machines, which include hydraulic excavators, dump trucks, wheel loaders, and dozers. With daily and periodic maintenance of excavators and dozers being carried out in the mines itself, the Service Van comes in handy.

The Service Van carries the complete maintenance crew and is equipped with a 15 KVA Generator, screw compressor of 42 CFM, water tank of 450 litres, bench grinder, bench vice, provision to carry four barrels of oil/grease, one ton overhead crane, portable welding machine, water jet cleaning machine, ladder for accessing the top of the machine, provision to operate pneumatic impact wrench, electric impact wrench, hydraulic torque wrench and vacuum cleaner.

The deployment of this Service Van has enabled considerable reduction in terms of maintenance/repair time at the KECML site and winning the customer confidence. Besides the routine maintenance, repairs requiring welding, grinding and cleaning in the mines are being attended.

JoiFUL Meet in Nagpur

Senior officials from L&T and Komatsu had a joint meeting with the management of M/s. Eastern Minerals & Trading Agency, one of the biggest coal producing private sector companies, at Nagpur on 2nd July 2009. During this JoiFUL meeting (Joint Follow-up Log, which is a Komatsu terminology), various points related to the equipment performance were discussed.

The meeting in progress with EMTA management
Bulldozer Operation Methods for Improved Fuel Efficiency

The basic job of a bulldozer with ripper is to dig, carry and doze the earth. Productivity and fuel consumption are highly dependent on factors such as site geography, including level or sloping ground, as well as soil composition. In addition, since a bulldozer predominantly operates at full power using its own weight, it is difficult to save on fuel consumption while working. Useful bulldozer operation methods that boost fuel efficiency by improving productivity and saving on fuel consumption during idling periods such as waiting for a dump truck are provided herein. We use results from the D155-6 model to illustrate this point.

Please note that the fuel efficiency data shown here may vary depending on the actual work site, machine condition and operator skill.

Avoid High Idling and Practice Idling Stops

When waiting for a dump truck at the dumping site, for example, it is possible to curb fuel consumption by avoiding high idling whenever possible. Specifically, use either low idling or depress the decelerator pedal to slow down the engine speed. Test results are as follows:

- Switching from high idling to low idling for 30 minutes a day saves on fuel consumption by 1,710 liters (452 U.S. gal) a year.
- Turning the engine off rather than using low idling for one hour a day saves on fuel consumption by 2,430 liters (642 U.S. gal) a year.

Start Dozing from the Front of the Dozing Zone

The most effective way to doze on level ground is to shorten the distance that the heavy load is carried by dozing front-to-back (from point A to point B to point C in the illustration). With this technique, you start from point A, which is 3 to 5 m (10 to 16 ft) back from point X at the forefront of the dozing area. After finishing dozing from point A, move further back in increments of 3 to 5 m (10 to 16 ft) each time to start a new dig.

This method increases the full load on the blade each time by using a downward gradient and enhances productivity by keeping the digging ground even. In contrast, making repeated digging from back-to-front results in elongating the digging distance and requires blade control (up/down operation) to prevent shoe slippage. Consequently, the dozed ground easily becomes uneven, making it more difficult to keep a full load on the blade. Compared with the back-to-front method, the front-to-back method improves fuel efficiency (productivity per liter) by 11%.

Doze Earth with a Downward Gradient

If site conditions allow, you can significantly improve productivity and enhance fuel efficiency (productivity per liter) by dozing the earth with a downward gradient. You can dig and carry a larger amount of soil in a downward direction when compared with level ground. Moreover, the time taken to advance is shorter, leading to higher productivity. While fuel consumption per hour is the same, a downward gradient of seven degrees realizes blade capacity almost 1.2 times higher than dozing on level ground at the same engine power.
Dozing with a downward gradient also effectively utilizes the weight of the bulldozer, so you can expect greater efficiency from larger blades such as full U-blades. It may be less effective with smaller blades. Further, reversing up a downward gradient of seven degrees in reverse 2nd gear (R2) provides for greater fuel efficiency than reverse 1st gear (R1). Although less fuel is consumed in R1, since the speed is also much lower, the bulldozer can move approximately 20% further in R2 using the same amount of fuel.

As a reference, productivity is much lower when dozing uphill since you are working against gravitational force. However, fuel consumption may not necessarily increase simply because it takes longer for each cycle of dozing the earth uphill.

Avoid shoe slippage and stalling
Dozing or ripping while shoes are slipping or keeping the torque converter stalled will increase the fuel consumption and cause irregular wear to the undercarriages.

- Select speed level most suitable for the load.
- Depress the decelerator pedal, lower engine speed and adjust blade or ripper load.

Doze again in soil where a full load on the blade is difficult
At sites where it is difficult to fill the blade since the ground is hard or the soil is rocky, reverse after the first dozing and doze once more to fill the blade as much as possible before carrying the material.

Minimize spillage from blade
You can improve operating efficiency by minimizing spillage from the blade while dozing. One method to achieve this is slot dozing. This method is particularly useful at sites where material is prone to spill from the sides of the blade due to large loads of relatively soft earth or movement downhill, and at sites where the load must be carried a long way.

- The digging procedure should be in the order [1] to [3] as shown in the illustration.
- The depth of the trench should not exceed the height of the blade.
- The space between the trenches should be approximately half the width of the blade.

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The two-day ‘Suminfra 2009’, co-sponsored by L&T, opened in Chennai on 6th August 2009 with the theme ‘Fast tracking infrastructure development through PPPs’. Speaking on the occasion, Mr. J.P. Nayak, Chairman, Suminfra 2009 and President (MIPD), L&T said that despite the economic slowdown world over, the Indian economy was doing well. Given the Eleventh Plan outlay for infrastructure and the states’ limited resources, he said the emergence of public-private partnerships was seen as the best viable way to bridge the infrastructure gaps. He said the revival of the economy had a multiplier effect on infrastructure spending. Inclusive economic growth was necessary through core infrastructure creation for the benefit of all, at affordable costs, he added.

‘Suminfra’ is an annual event organized by Confederation of Indian Industry, Southern Region, with accent on promoting PPPs in various sectors of industry and utilities. Senior officials from the State Governments of Tamil Nadu, Karnataka, Kerala and Andhra Pradesh participated in the event and highlighted the investment opportunities in infra sector. Each of the Southern States made presentations on opportunities and investment plans in their respective states.

Expert speakers dealt with issues relating to the impact of economic slowdown, need for stimulus package, sector prioritization, overcoming constraints in capacity building and risk-mitigation in projects. There were presentations on PPP opportunities in railways, drinking water, rural infrastructure, health services and ports. The summit was attended by over 250 delegates from all over the country. Coinciding with the event, sponsors including L&T had put up stalls at the venue with photographic display of products and services offered.