

# L&T Earthmover News

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## L&T Puts Up Impressive Display at IMME 2008

Come November, every alternate year the Coal Capital – Kolkata, springs to life with the movement of men, materials and machinery. All congregating to make the International Mining and Machinery Exhibition (IMME) a mega event. Likewise, the 9th IMME held close to the Salt Lake Stadium, the largest soccer arena in Asia, from 5th to 8th November 2008 attracted major players from across the globe.

The exhibition was inaugurated by Mr. Buddhadeb Bhattacharjee, Chief Minister of West Bengal, who

emphasized the need for acceleration in coal production by optimizing advanced technologies and the induction of new-age machinery. Mr. Santosh Bagrodia, Union Minister of State for Coal; Mr. B.K.Handique, Union Minister of State for Mines; Mr. Shantanu Consul, Mines Secretary, Govt of India; and Mr. P.S.Bhattacharyya, Chairman, Coal India Limited, actively participated in the exposition.

Confederation of Indian Industry organised the exhibition and was supported by Ministry of Coal, Ministry of Mines



Mr. Santosh Bagrodia, Union Minister of State for Coal, and Mr. Partha S. Bhattacharyya, Chairman, M/s. Coal India Limited, being greeted by Mr. J.P.Nayak, President (MIPD), L&T, at the outdoor stall of L&T and Komatsu at IMME 2008.

Mr. A.K.Garg, Joint General Manager, Construction Equipment Business, L&T, is seen at extreme right.





*Mr. Ujjal Kumar Upadhaya, Chairman, EMTA Group of Companies, receiving the symbolic key of Komatsu HD785-7 Rear Dump Truck jointly from Mr. S.K.Mittra, Vice-President, Construction & Mining Equipment Business Unit, L&T and Mr. Davinder Singh, General Manager, Komatsu India Pvt Ltd.*



*Mr. R.S.Rungta, Chairman, Rungta Group and his management team receiving the symbolic key for L&T-Komatsu PC450LC-7 Hydraulic Excavator from Mr. J.P.Nayak and Mr. S.K.Mittra.*

and Coal India Limited. The show was partnered by Germany – the focus country being Australia. Nearly 50 companies from these two countries had put up an impressive display. The show comprised of two huge hangars for indoor participation, besides outdoor area with constructed stalls and display of equipment.

L&T's Construction and Mining Equipment Business Unit along with Komatsu Ltd., put up an excellent outdoor display of its offerings for mining operations, in terms of products and services. Covering an area of 1020 sq.m., the L&T's stall was done in trendy design and had a mezzanine floor, viewing gallery, reception area and 4 conference rooms. It commanded tremendous visibility and amiable product display.

Live display of the giant Komatsu HD785-7 Dump Truck, along with the latest Komatsu D155A-6R Dozer and L&T-Komatsu PC450LC-7 Hydraulic Excavator could effectively reinforce L&T's strong presence in mining sector and the role of a major player in this industry. It was also a platform for demonstrating its continued commitment to provide comprehensive fleet solutions for the mining sector. An integrated table-top display of spare parts emphasized the importance of genuine parts and guaranteed quality for the customers.

L&T was led at the highest level by Mr. J.P.Nayak, President (MIPD) and Mr. S.K.Mittra, Vice-President, Construction & Mining Equipment Business Unit, in

interacting with the various customer delegations at the show. This was ably supported by teams from L&T's Mining Equipment Business, Construction Equipment Business & Product Support Department, and Komatsu's teams from Japan, Singapore and India. Corporate customers and leading contractors who visited the stall appreciated the efforts made by L&T in introducing advanced technology to the Indian market. Many customers got the opportunity to view the machines at close quarters and some of them even went up the specially-made staircase to get into the cabin of HD785 Dump Truck to get a feel of the controls of this mammoth machine.

During the exhibition, symbolic keys of machines were handed over to customers – HD785-7 Rear Dump Truck to M/s Eastern Minerals & Trading Agency, D155A-6R Dozer to M/s. Dhansar Engineering and PC450LC-7 Hydraulic Excavator to M/s. Rungta Projects.

Coinciding with the exhibition, the Global Mining Summit which was organised by CII in Hyatt Regency, deliberated on issues relating to accelerated investments, resource optimization, best global practices, infrastructure development and the new mining policy. Buyer-Seller Meet brought together equipment sellers and coal/mining companies for a better interaction. Topics covered included technology upgradation, expansion plans and fleet modernization.



*A view of the product display at L&T and Komatsu Stall at IMME 2008.*





Mr. M.K.Thapar, Director, and Mr. U.K.Kothari, General Manager, M/s. Adani Mining Private Limited, alighting the stairs after having a look at the cabin of Komatsu HD785-7 Rear Dump Truck.



Mr. Umang Kejriwal, Managing Director (second from left) and Mr. R.S.Singh, Executive Director (right), M/s. Electrosteel Castings Ltd, being taken around the stall by Mr. Dipankar Banerjee, Head, Mining Equipment Business, L&T and Mr. Kausik Bose, Zonal Manager (East), Mining Equipment Business, L&T.



Mr. H.S.Atwal, Managing Director, and Mr. Govind Atwal, Director, M/s. G.S.Atwal & Company (Engineers) Pvt Ltd in discussion with Mr. D. Banerjee and Mr. S. Ghosh, Dy. General Manager, Product Support Dept. - East, L&T (third and fourth respectively, from left).



Mr. J.P.Nayak handing over the symbolic key of Komatsu D155A-6R Dozer to the family members of Mr. Manoj Agarwalla (extreme left) and Mr. Ravi Agarwalla (third from right) of M/s. Dhansar Engineering Company (Private) Ltd at IMME 2008. Mr. S.K.Mitra is seen applauding.

## Scania Tipper a Big Attraction at IMME 2008



Mr. Suresh Reddy, Director, M/s. AMR Constructions, receiving the symbolic key of Scania P380 Tipper Truck from Mr. J.P.Nayak, President (MIPD), L&T. Mr. Dilip Sen, Area Manager, L&T, Kolkata, is seen.

Scania P380 Tipper Truck, on display at the L&T and Scania Stall, was a huge draw amongst customers and visitors coming to the IMME 2008 in Kolkata. This Swedish-technology truck marketed by L&T has been making waves in the Indian mining industry with its robust design and reliable performance. L&T launched this truck in India late last year and already a large number of these trucks have been deployed for various applications.

This was the first time that Scania Tipper Truck was showcased prominently in an international mining show in India. Several contractors involved in overburden removal and ore extraction, showed keen interest in the truck. L&T team demonstrated the unique features of the Scania tipper in terms of power train, fuel economy and stress-free driveability. The imposing platform situated close to the truck enabled the customers to get a closer look at the improvisations made on it, for the Indian market.

## Vote of Confidence – Mangalore

### *L&T machine is of top quality: Mr. Richard D'Souza*

Behind the success of St. Joseph Earthmovers, lies the huge efforts of D'Souza brothers, Mr. Francis and Mr. Richard. Based in Belman, Karkala taluk in Udupi district, these brothers work in close coordination with each other in executing tasks in time and seeking new challenges.

The D'Souza brothers started off with local transport business in 1987. Acquiring of laterite mines on lease prompted them to go for backhoe loaders. This experience in semi-mechanisation gave them the confidence to handle new projects and in 2003, St Joseph Earthmovers purchased the first L&T-Komatsu PC71 Hydraulic Excavator, followed by two more machines in 2004 and 2007.

"One of the projects which gave us a lot of challenge was that of Suzlon's Wind Power Project coming up in Padubidri which involved making approach roads and marking fencing land covering over 600 acres", reveals Mr. Richard D'Souza. Another project in which he was closely associated was with the Nitte Education Trust. "We deployed the L&T-Komatsu PC71



machine successfully to demolish old buildings in a really confined area", he says. The brothers are also executing several other works for the Nitte Trust.

"We have enough confidence to go in for bigger projects and we are looking at Nagarjuna and Lanco power projects for opportunity", says Mr. Richard D'Souza who is planning more machine acquisitions in the future, to drive his ambition.

They have also completed a couple of PMGSY projects in Udupi-Karkala belt.

Mr. Richard D'Souza, who holds a diploma in Mechanical Engineering, knows the machine inside out. He is adept at stripping a L&T-Komatsu PC71 Hydraulic Excavator and putting it back together. He makes sure the machines go through periodical check-up and are in top condition. He also makes sure that the machines are handled by well-trained operators only. "Though there were many brands in the market, we found that L&T machine is of top quality. That is why, we went in for more of the same brand", concludes Mr. Richard D'Souza.

### *L&T machines give us good productivity: Mr. Senthil Kumar*

M/s. Yamuna Borewells & Earthmovers is one of the progressive firms in Udupi-South Kanara region engaged in earth-work activity for big corporates. Started only two years back, the company has been performing well. It is managed by Partners – Mr. Purushotham Shetty, an experienced hand and Mr. Senthil Kumar, who has just got into business.

Mr. Senthil Kumar, who completed B.E. in Computer Science from Coimbatore, tied up with his father's (a leading businessman in Tamil Nadu) long-time associate Mr. Shetty and started this new venture. With head-on involvement in the projects and understanding the user demands, Mr. Senthil Kumar has been able to gain confidence. The firm is currently engaged in site



grading and construction work of ONGC-MRPL expansion project in Mangalore. Its other projects include that of Nagarjuna Group, Infosys and Abhiman Constructions.

"We are highly satisfied with L&T machines, which give us good productivity and are maintenance-free", says Mr. Senthil Kumar, who owns L&T-Komatsu's PC200-6 and PC300LC-7 Hydraulic Excavators, and is now looking for higher-

capacity machines for the future. "All our operators are well trained to handle equipment and we have put up a team which complies with all maintenance stipulations", he adds. Mr. Senthil Kumar is looking for diversification of business into new areas like apartment blocks and building construction in the near future.



## Vote of Confidence – Mangalore

### ***Mr. Prakash is an Ambassador of L&T !***

**M**r. T.Prakash of M/s. Shiraksha Earthmovers, Nellyyadi, is impressed with L&T machines' performance. He has become L&T's ambassador in his area.



Mr. Prakash is a polytechnic graduate and moved into this business two years ago, after seeing his relatives doing well. He initially faced difficulties in executing the jobs, but soon learnt the rules of the game. The exposure in handling equipment at projects made him confident to move ahead and take up the

railway works between Sakleshpur and Gundya. He now has two L&T-Komatsu PC71 machines, the first has crossed 6500 hrs and the second 600 hrs.

He finds that there is a lot of scope for bigger machines. “ I want to surely go in for bigger machines but require confidence”, says Mr. Prakash. He is frequently on the move shuttling between his

workplace, field and meeting corporates for seeking new jobs.

### ***L&T excavators give me good output: Mr. Raghavendra***

**M**r. A.Raghavendra of M/s. Naveen Earthmovers, Puttur, hails from an agrarian background – his family is involved in raising arecanut crop. He, however, wanted to do something different and got into hiring of machines for taking up earthwork locally. This gave him confidence and in 2005, he purchased the first L&T-Komatsu PC71 Hydraulic Excavator and deployed it for railway gauge upgradation and power project activities. Today, he has two PC71 machines – the first has crossed 11,000 hrs and the second 5000 hrs.



“I have so far not faced any major problem with L&T machines. They have given me good output.”, says Mr. Raghavendra, whose machines are presently engaged in rubber plantation estates. When it comes to expanding business, he is conservative and debates on inflationary trends and investment climate. He also feels that owning two bigger machines would accrue better profits in the long run, as compared to owning several smaller machines.

### ***I am happy with my machines: Mr. Liju Issac***

**F**or Mr. Liju Issac, an engineering graduate in Mangalore, it is a one-man show. He has been involved in a number of small projects from levelling works to landscaping projects in South Kanara region. “ I am happy with my machines”, says Mr. Liju who owns 2 nos L&T-Komatsu PC71 Hydraulic Excavators. While the first one has crossed 7000 hrs, the second has just completed 4000 hrs. The machines are now engaged in rubber plantation estates.



It was several decades back, that Mr. Liju's grandfather shifted out of Kottayam, Kerala to settle down in South Kanara. So, Mr. Liju who attended the local school, speaks Tulu fluently, and enjoys working with the localites. Among recent projects he has handled include the landscaping projects for an apartment block and for a private residence of a prominent industrialist in Kasargod. He plans to expand his business and go for bigger machines in the future. Mr. Liju Issac is also into construction activities.

## Vote of Confidence – Mangalore

### *L&T machines' performance is good: Mr. Abdul Azeez*

A first-generation successful businessman from Bantwal, Mr. Abdul Azeez, is all inspired by his uncle Mr. P.B.Ibrahim of M/s. P.B.I. Constructions, Bhatkal, who is a leading contractor in the area and has executed a number of priority projects in the road sector.

Mr. Abdul Azeez established M/s. P.B.A. Earthmovers in 1998, after a short stint with his uncle. He started off with a loader backhoe and purchased L&T-Komatsu PC71 Hydraulic Excavator aiming at bigger projects. He has completed levelling jobs, demolition of old houses, excavating for new foundation etc. Today, he owns 4 nos L&T-Komatsu PC71 and 1 no L&T-Komatsu PC130-7 Hydraulic Excavators. Mr. Azeez is conservative about deploying his excavators for mining projects lest they get damaged.



Sure, Mr. Azeez is in a mood to expand his business and make it big in life. He is looking for avenues in the road sector, for which, he would soon register with Public Works Department, Government of Karnataka. Besides, he is also zeroing on to minor irrigation for dam excavation and canal works. "If you maintain well, L&T machines are good. Their performance is good when compared to other similar models", says Mr. Azeez.

He has a full-time manager Mr. Manjunath, who coordinates the site activities with the help of supervisors. He also has a workshop to handle routine maintenance and small repairs.

Mr. Azeez is actively involved in South Kanara Earthmovers Association which provides a common forum for the contractors.

Kundapura, Udupi



### **L&T-Komatsu PC71 in various job sites in South Kanara**



Puttur, Mangalore

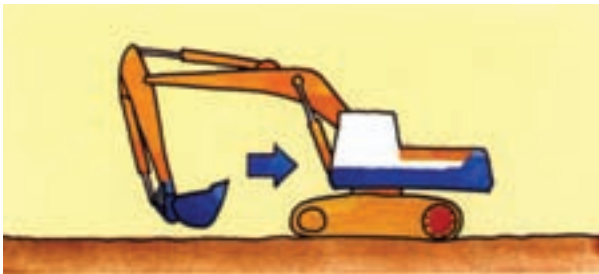


## Avoiding Pitfalls in Machine Operation – II

(Contd. from last issue)

### Travel (Recommendable Operation)

#### TRAVEL POSTURE



When travelling, pull the work equipment close to the machine, and make the posture as stable as possible. To protect the final drive, it is recommended to travel with the final drive at the rear.

#### CLEAN UNDERCARRIAGE BEFORE STARTING TO TRAVEL

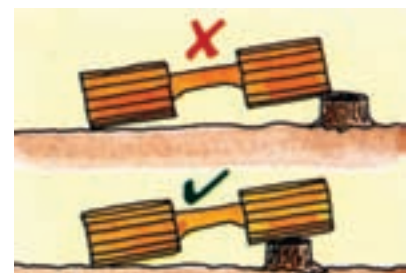


When operating on muddy ground, mud sticks to the undercarriage, so if the machine travels in this condition, it will cause wear of the undercarriage. Raise the track on one side and rotate the track to remove the mud.

#### TRAVELLING OVER OBSTACLES



If the machine travels over obstacles such as tree stumps and rocks, the shoes will bend, or a high load will be brought to bear on the pin. To prevent this problem, avoid driving over obstacles as far as possible.



If the machine must travel over an obstacle, drive the centre of the shoe over the obstacle to prevent bending.

#### TRAVELLING OVER A MOUND



When travelling over a mound, always support the chassis with the work equipment to prevent any shock.



#### CLIMBING RAMPS



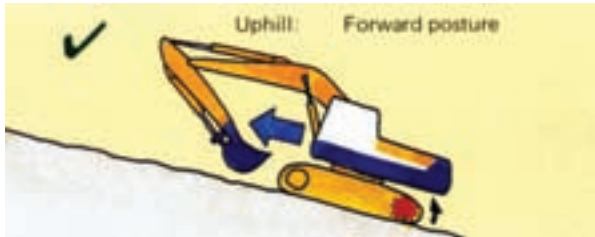
When climbing a ramp, it is easier and safer if the work equipment is used to help the machine.

## TRAVELLING OVER DITCHES

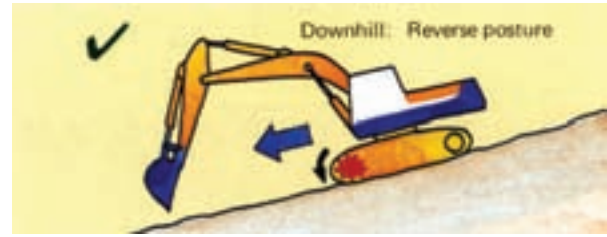


When travelling over ditches or holes, it is safer if the work equipment is used to help the machine.

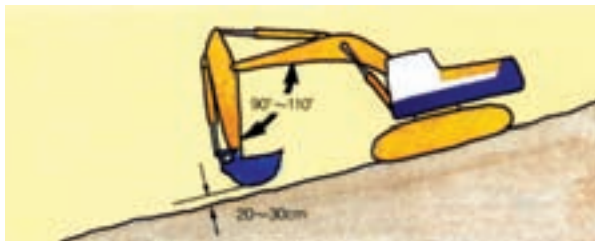
## TRAVELLING, STOPPING ON SLOPES



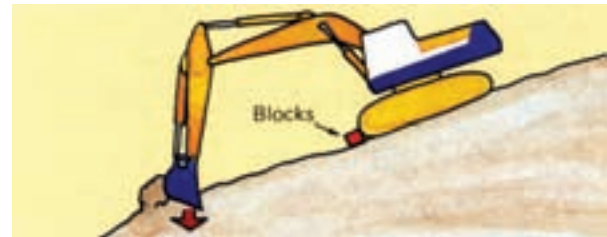
If the sprocket is at the front, the surface of the track in contact with the ground will be loose, and there will be loss of drive force.



When travelling downhill, if the sprocket is at the rear, the track at the top will be loose. When stopping, if the travel lever is placed at neutral, there is danger that the machine will travel forward distance equal to the amount of the loose track.



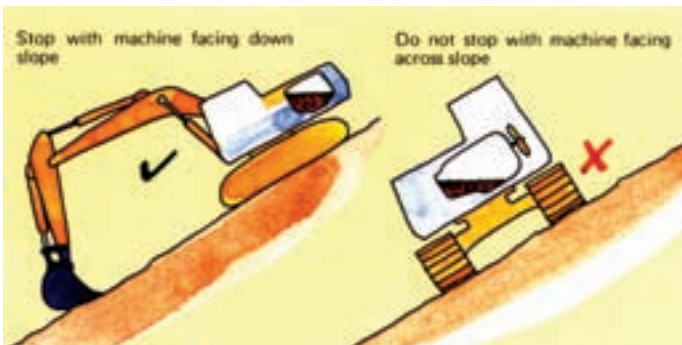
When travelling down steep slopes, keep the work equipment in a position that ensures the stability of the machine, and at the same time position the work equipment, so that it is possible to use it to stop in emergencies.



If it is necessary to stop, place the lever at neutral, apply the brakes, then dig the bucket slightly into the surface of the ground and put blocks under the tracks.

## Travel (Prohibited Operation)

### STOPPING FOR LONG PERIODS ON SLOPES WITH ENGINE IDLING



When stopping for long periods on steep slopes with the engine running, there may be cases where the angle of the oil level means that lubrication cannot be carried out properly. Avoid stopping the machine for long periods on slopes with the engine idling. If it is necessary to stop in such conditions, always stop with the machine facing down the slope. This also increases safety.

### TRAVELLING FOR LONG DISTANCES



If the machine travels for long distances, the inside of the undercarriage rollers are constantly rotating in contact, so high heat is produced.

Stop the machine from time to time to cool. This improves lubrication inside the rollers and also extends the life of the undercarriage.



## TRAVELLING WITH TRACK RAISED ON ONE SIDE



Travelling with the track raised on one side brings a high load to bear on the undercarriage and chassis frame. Except in cases where it is necessary, always travel on flat places. This extends the life of the machine.

## OPERATING WHILE TRAVELLING

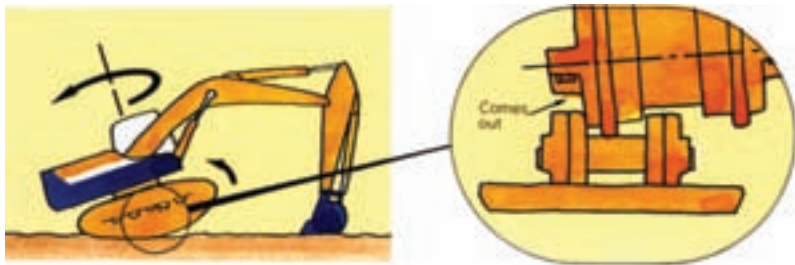


The travel force is the force used to move the machine. Travelling while operating brings an excessive force to bear on the undercarriage and final drive when contacting obstacles.

Use the power of the work equipment to carry out operations.

## Turning

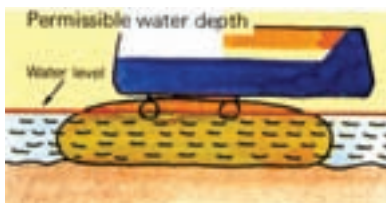
### SPIN TURN



If the track is loose when carrying out spin turns, there is danger that the roller may ride up on the link or pin.

Always keep the track shoe tension properly adjusted.

## Operation in Water



When operating a hydraulic excavator in water, the water level should come up only to the centre of the carrier roller.

If operations are carried out in deeper water, the angle of the machine may cause the water to come above the level of the circle oil bath, so problems may be caused by the entry of water.



When operating in water, on steep slope and if the upper structure is swung when driving out, and the engine in the rear part touches the water, there is danger that the engine fan may be broken, so do not swing, but drive back in reverse.

## Escaping from mud



When the track on one side goes into swampy ground, put the bottom surface of the bucket in contact with a plate, then raise the track and put wooden blocks under the track to escape from the mud.



When the tracks on both sides go into swampy ground, lay wooden blocks first, then dig the bucket into the ground and use the power of the arm to escape. *(to be continued)*

**Courtesy: L&T Training Centre**

## Business Partners Meet in Hyderabad



*Dr. A. Ramakrishna addressing the meet. Seen on the dais are Mr. Arun Pai, Mr. A.K. Garg and Mr. B.V. Subba Rao*

**L**&T's Construction Equipment Business, Hyderabad and L&T-CASE Equipment Private Limited jointly hosted a one-day Business Partners Meet at Hotel Fortune Manohar in Hyderabad on 11th December, 2008. Dr. A. Ramakrishna, former Deputy Managing Director, L&T, was the chief guest on the occasion.

Mr. Arvind Garg, Joint General Manager – Construction Equipment Business, addressed the gathering. Mr. T. Saravanakannan, Zonal Manager, S-1, Hyderabad gave an overview of the products offered by Construction & Mining Equipment Business Unit. Mr. B. Dinakar, Head-Construction & Mining Tipper Business, L&T; Mr. Arun Pai, Head-Marketing, L&T-CASE and Mr. B.V. Subba Rao, Area Manager, Hyderabad, participated in the meet. Several customers engaged in construction, mining, road building and infrastructure projects from Andhra Pradesh attended the event.

Speaking on the occasion, Dr. Ramakrishna said the success of the construction industry depended on the mechanization and faster completion of the projects. This, he added, would help the contractors in reducing costs. He dwelt at length on the various aspects of challenges faced by the construction and infrastructure industry. This was followed by open forum when the customers interacted with Dr. Ramakrishna on a host of pertinent subjects.

### Scania Tippers Drive into Western Sector

In a significant development, L&T has bagged orders for Scania tipper trucks from M/s. Sadbhav Engineering Private Limited, an ISO 9001 company from Gujarat. The trucks have been deployed for overburden removal at Gujarat Industries Power Company's Vastan Mines near Surat. M/s. Sadbhav Engineering has been an L&T customer for several years and specializes in road construction, irrigation and mining projects in the State. L&T has been successful in bagging this maiden order for Scania Tipper Trucks from M/s. Sadbhav Engineering, thus making inroads into the Western Sector.

### PC450 Filter Kit Released

The PC450 filter kit released recently by L&T's Construction Equipment Business is being marketed by dealers across the country. Each kit is designed and packed in hard carton with polyurethane material to prevent any damage. The advantages include availability of all filters in a single packing, and economical as compared to the price of individual filters. These genuine filters from Komatsu take care of the machine for scheduled maintenance up to 1500 hrs. The kit consists of air filter assembly, hydraulic filter, hydraulic breather element, corrosion resistor, fuel filter, additional fuel filter and engine oil filter.

### Nepal Gets New Dealer

M/s. Force Construction and Associates (P) Ltd. have been appointed as the Dealer for Construction Equipment Business of L&T in Nepal. The scope includes providing spare parts and service support, along with sales of L&T-Komatsu make excavators in the entire territory of Nepal. The company is led by Mr. Kedar Nath Lamichhane, Managing Director, who has over 15 years of field experience.

Force Construction is part of the Shanker Group, which was established in the early 1970s. The group was involved in import of textile and yarn from Japan, Korea and South Asian countries. The group was founded by Mr. Shanker Lal Agarwal, Chairman. Shanker Group represents several other products/brands in the Himalayan kingdom.

***The greatest test of courage  
on the earth is to bear  
defeat without losing heart.***

***– R.G. Ingersoll***



## L&T Launches Komatsu D155A-6R Dozer at IMME 2008

**L**&T launched Komatsu D155A-6R Bulldozer at the 9th International Mining & Machinery Exhibition in Kolkata in November 2008. M/s. Dhansar Engineering Company Limited have taken delivery of the first machine and deployed it at Hindustan Zinc Limited's Rampura Agucha Mines. This is the latest in the series of Bulldozers manufactured by Komatsu and inherits the perfection and performance of the popular D155 series.

Fitted with fuel-efficient electronic-controlled Komatsu SAA6D140E-5 engine, the D155A-6R Bulldozer is superior for both dozing and ripping operations. It delivers 354 HP at 1900 rpm. The engine is turbocharged and features direct fuel injection and air-to-air after-cooling to maximize power. Engine cooling fan is driven hydraulically with auto control function depending on coolant and hydraulic oil temperature, thereby saving fuel consumption and providing great productivity with a quiet operating environment. Noise and vibration levels are reduced by mounting the engine onto the mainframe with rubber cushions.

The D155A-6R Bulldozer is fitted with large blade of 9.4CuM (Semi-U tilt type) or 11.9CuM (Full-U tilt type) yielding outstanding productivity. High-tensile strength steel is incorporated for increased durability. Ripper cylinders are reduced to two, thereby improving rear visibility during operations.

Its unique low-drive rugged undercarriage travels well over rocky terrain and features less shoe slippage compared with other types of undercarriage. The undercarriage follows the ground firmly for increased drawbar pull. Large strengthened shoes are highly durable for various job sites across the world.

Komatsu's ergonomically-designed PCCS (Palm Command Control System)

assures the operator with complete command and control. Transmission gear shifting is simplified with thumb push buttons. Other features include automatic gear shifting function, proportional pressure control valve for blade/ripper control joystick and height adjustable arm rest.

The newly designed enclosed pressurized cab is integrated with ROPS; has high-capacity air-conditioning system and provides for excellent visibility. A large user-friendly multi-lingual LCD monitor enables accurate and smoother work. The cab damper spring isolates the cab from the machine body suppressing vibration and providing a quiet comfortable operating environment. D155A-6R has conveniently located maintenance points for quick inspection and easy diagnosis.

The induction of Komatsu's D155A-6R Bulldozer shall usher in new heights of productivity in the Indian mining industry.



## L&T Launches D39EX-21 Dozer in Indian Market

**L**arsen & Toubro Limited has launched the newly-developed Komatsu D39EX-21 Crawler Dozer in the Indian market. The first lot of dozers have been delivered to M/s. SN Jyoti Associates, Bhubaneswar; M/s.HES Infra Pvt Ltd, Hyderabad and M/s.Totem Infrastructure Ltd, Hyderabad and are deployed in Orissa, Andhra Pradesh and Madhya Pradesh respectively, for site development work and irrigation projects.

These machines, which offer superior power and dozing operations, are designed to work in general construction, site preparation, buildings, forestry and utility applications.

The D39 frame is designed using advanced computer-aided engineering. The frame structure combines the main frame and track frame with connecting bars to deliver the ideal stiffness

required in a small size dozer. Travel motors and final drives are mounted inside the track shoe for protection from rocks and stumps and for improving durability. The life of undercarriage and reliability are greatly extended by the use of large size links, pins, bushings and unique dust seals.

Fitted with SAA4D102E-2 turbocharged diesel engine, this dozer delivers 95 hp output and meets the Tier-II emission standards. The dozer is equipped with Hydrostatic transmission and consists of dual-path and closed-circuit with two variable displacement piston pumps and two 3-speed variable displacement travel motors. This allows the operator to select the optimum speed to match specific jobs.

D39 Dozer uses HST dynamic brakes to ensure safe operation. The newly-developed 3-axis PPC valve and ergonomically-designed joystick provide light operating effort and excellent blade response. PCCS

(Palm Command Control System) joystick controls all directional movements. Hydrostatic steering eliminates steering clutches and brakes, providing smooth powerful turns.

The large ground contact area created by the long tracks and wide track gauges combine with a low centre of gravity to make D39EX-21 a stable and well balanced machine that can perform precise grading work on rough as well as inclined terrain. The slim engine hood and well-located operator seat provide excellent visibility

to the blade. This clear blade visibility increases grading efficiency and reduces operator guesswork.

With the hydraulic closed-centre load sensing system, the blade lever stroke is directly proportional with blade speed, regardless of the load and travel speed. The benefits include precise and responsive

operation due to the pressure compensation valve and reduced fuel consumption by discharging only the required amount of oil from the pump.

An electronic monitoring system prevents minor problems from developing into major ones. All meters and gauges are controlled by a microcomputer, which provides a wide indication range for an easier, more precise reading.

Thanks to its host of advanced features and productivity edge, the D39EX-21 Dozer has become a hit in the Indian construction industry in a short time and is here to accelerate the output for many years to come.

