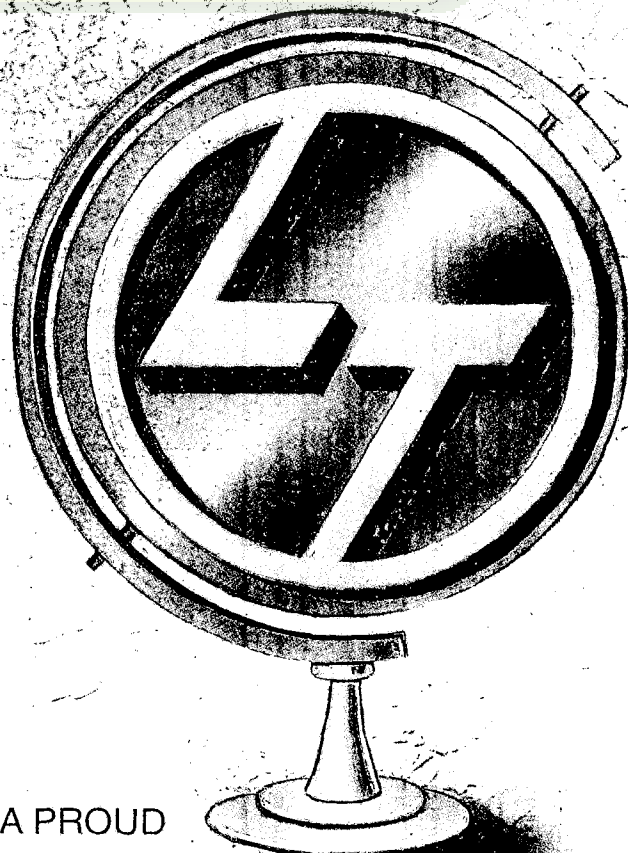


# LARSEN & TOUBRO LIMITED

ANNUAL REPORT 1997-98

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CS	<input checked="" type="checkbox"/>		DPY	<input checked="" type="checkbox"/>
RO	<input checked="" type="checkbox"/>		DIV	<input checked="" type="checkbox"/>
TRA	<input checked="" type="checkbox"/>		AG	<input checked="" type="checkbox"/>
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YE	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>

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# *Fiftythird annual report 1997-98*

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## **Board of Directors**

H. Holck-Larsen  
*Chairman Emeritus*

S.D. Kulkarni  
*Managing Director &  
Chief Executive Officer*

M.P. Wagh  
A.M. Naik  
A. Ramakrishna  
M. Karnani

*Presidents*

J.P. Nayak  
Y.M. Deosthalee

*Senior Vice Presidents*

A.S. Gupta  
S.S. Marathe  
M.D. Ambani  
M.L. Bhakta  
A.D. Ambani  
D.V. Kapur  
G. Armbruster  
P.S. Subramanyam  
K.U. Mada  
P.M. Venkatasubramanian  
G.P. Kohli

## **Secretary**

S.V. Subramanian

## **Auditors**

Sharp & Tannan

## **Solicitors**

Manilal Kher Ambalal & Co.

## **Registered Office and Head Office**

L&T House  
Ballard Estate  
Mumbai 400 001

## **Investor Relations Department**

Bakhtawar, Ground Floor  
Nariman Point  
Mumbai 400 021

**FIFTYTHIRD ANNUAL GENERAL MEETING** at Birla Matushri Sabhagar, 19, Marine Lines, Mumbai 400 020 on **Thursday, 6th August, 1998 at 3.30 p.m.**

# Notice

**NOTICE IS HEREBY GIVEN THAT** the Fiftythird Annual General Meeting of LARSEN & TOUBRO LIMITED will be held at Birla Matushri Sabhagar, 19 Marine Lines, Mumbai 400 020, on Thursday, the 6th August, 1998 at 3.30 p.m. to transact the following business:

1. To consider and adopt the Balance Sheet as at 31st March, 1998, the Profit & Loss Account for the year ended on that date and the reports of the Board of Directors and Auditors thereon.
2. To declare a dividend.
3. To appoint a Director in place of Mr. A. Ramakrishna, who retires by rotation and is eligible for re-appointment.
4. To appoint a Director in place of Mr. M. Karnani, who retires by rotation and is eligible for re-appointment.
5. To appoint a Director in place of Mr. J.P. Nayak, who retires by rotation and is eligible for re-appointment.
6. To appoint a Director in place of Mr. Y.M. Deosthalee, who retires by rotation and is eligible for re-appointment.
7. To appoint a Director in place of Mr. A.S. Gupta, who retires by rotation and is eligible for re-appointment.
8. To appoint a Director in place of Mr. G.P. Kohli, who was appointed as an additional Director by the Board of Directors and holds office upto the date of the ensuing Annual General Meeting of the Company, and is eligible for re-appointment and in respect of whom the Company has received a notice in writing from a member under the provisions of Section 257 of the Companies Act, 1956 proposing his candidature for the office of a Director.
9. To consider and, if thought fit, to pass with or without modification, the following Resolution as a **SPECIAL RESOLUTION**:

**"RESOLVED THAT** pursuant to Section 370 and other applicable provisions, if any, of the Companies Act, 1956, the Board of Directors of the Company, be and is hereby authorised to give any guarantee or provide any security in connection with a loan or loans made by any other person to, or to any other person by, any body corporate, provided that the aggregate value of such guarantee(s) given or securities provided and outstanding shall not exceed Rs.200 crore at any time.

**RESOLVED FURTHER THAT** the Board of Directors of the Company be and is hereby authorised to determine the amount and conditions of such guarantee or security and to decide all or any other matters arising out of or incidental thereto and to do all such acts, deeds, matters and things as may be necessary and/or expedient in that behalf."

10. To consider and, if thought fit, to pass with or without modification the following resolution as an **ORDINARY RESOLUTION**:

**"RESOLVED THAT** pursuant to the provisions of Section 293(1)(a) and other applicable provisions, if any, of the Companies Act, 1956 the consent of the Company be and is hereby granted to the Board of Directors of the Company to create mortgage(s)/charge(s) on any one or more of the undertakings of the Company including the moveable and/

or immoveable properties and assets of all kinds, present and future, in the form of first and/or second and/or subservient mortgage/charge and/or floating charge to secure by one or more documents, and from time to time, in favour of the debenture trustees, who may be appointed by the Board of Directors of the Company towards issue of secured non-convertible debentures, in one or more tranche on rights basis and/or on private placement basis and/or to the public under a prospectus on the date(s) for issue thereof as may be decided by the Board of Directors and/or in favour of financial institutions/banks/other lenders providing/ extending term loans/financial assistance, to secure repayment of such debentures/term loans/financial assistance obtained to meet the capital expenditure for diversification/expansion programmes of the Company, of an amount not exceeding Rs.3,500 crore at any one time together with interest thereon, further interest, if any, remuneration of the trustees for the holders of the said debentures, costs, charges, expenses, and all other monies payable to the trustees for holders of the said debentures/ financial institutions/banks/other lenders and incurred in terms of the issue of the said debentures and/or terms and conditions of the term loans/financial assistance obtained as aforesaid.

**RESOLVED FURTHER THAT** the Board of Directors of the Company be and is hereby authorised to vary and/or alter the terms and conditions of the security aforesaid in consultation with the debenture trustees, financial institutions/ banks/ other lenders and mortgagees as may be necessary.

**RESOLVED FURTHER THAT** the Board of Directors of the Company be and is hereby authorised to prepare, finalise and execute in favour of the said trustees for the holders of the said debentures/financial institutions/banks/other lenders the documents, writings and such other agreements, as may be necessary for creating mortgages and/or charges as aforesaid and to do all such acts, deeds, matters and things as may be necessary and/or expedient in that behalf."

11. To appoint Auditors and to fix their remuneration and for that purpose to pass with or without modification, the following Resolution as a **SPECIAL RESOLUTION**:

**"RESOLVED THAT** the Company's Auditors, Messrs. Sharp & Tannan, who retire but, being eligible, offer themselves for re-appointment, be and are hereby re-appointed as Auditors of the Company including for all its branch offices for holding the office from the conclusion of this Meeting until the conclusion of the next Annual General Meeting and that their remuneration be and is hereby fixed at Rs.25,00,000/- (Rupees Twentyfive Lakh only) exclusive of travelling and other out of pocket expenses."

By Order of the Board of Directors  
for **LARSEN & TOUBRO LIMITED**

Mumbai  
29th May, 1998

**S. V. SUBRAMANIAN**  
COMPANY SECRETARY

Registered Office:  
L&T House  
Ballard Estate  
Mumbai 400 001



**NOTICE RECEIVED FROM A SHAREHOLDER :**

The members are hereby informed that the Company has received a notice dated 5th November, 1997 under the provisions of Section 257 of the Companies Act, 1956 from Mr. Shyam Sunder Gupta, 134, M.G. Road, Calcutta 700 007, a Shareholder of the Company, proposing his candidature for the office of Director of the Company.

**NOTES:**

- (a) The relative Explanatory Statement pursuant to Section 173(2) of the Companies Act, 1956 in respect of the business under Item Nos. 8 to 11 set out above is annexed hereto.
- (b) A MEMBER ENTITLED TO ATTEND AND VOTE IS ENTITLED TO APPOINT A PROXY TO ATTEND AND VOTE INSTEAD OF HIMSELF AND A PROXY NEED NOT BE A MEMBER.
- (c) The Register of Members and Transfer Books of the Company will be closed from Wednesday, 15th July, 1998 to Thursday, 6th August, 1998, both days inclusive.
- (d) The dividend when sanctioned will be made payable on or after 6th August, 1998 to those shareholders, whose names will appear as members in the books of the Company on that date.
- (e) All documents referred to in the accompanying Notice and the Explanatory Statement are open for inspection at the Registered Office of the Company on all working days, except Saturdays, between 11.00 a.m. and 1.00 p.m. upto the date of the Annual General Meeting.
- (f) Members/proxies should bring the attendance slip duly filled in for attending the meeting.
- (g) The Company has already transferred unclaimed dividend declared for the financial year ended 31st March, 1994 to the General Revenue Account of the Central Government as required by the Companies Unpaid Dividend (Transfer to General Revenue Account of the Central Government) Rules, 1978.

The unpaid dividends that are due for transfer to the Central Government are as follows:

Dividend No.	Date of declaration	For the Financial Year	Due for transfer on
63	28.07.1995	1994-1995	13.09.1998
64	02.08.1996	1995-1996	13.09.1999
65	01.08.1997	1996-1997	18.09.2000

Members who have not encashed their dividend warrants may approach the Company's Investor Relations Department at Bakhtawar, Nariman Point, Mumbai 400021 for revalidating the warrants or for obtaining duplicate warrants.

**EXPLANATORY STATEMENT**

As required by Section 173(2) of the Companies Act, 1956, the following Explanatory Statement sets out material facts relating to the business under Item Nos. 8 to 11 of the accompanying Notice dated 29th May, 1998.

**Item No. 8 :**

Mr. G.P. Kohli was appointed as an Additional Director of the Company with effect from 18th September, 1997 as proposed by Life Insurance Corporation of India. Pursuant to Section 260 of the Companies Act, 1956, Mr. G.P. Kohli will hold office of Director upto the date of the ensuing Annual General Meeting. The Company has received a notice in writing from a member proposing the candidature of Mr. G.P. Kohli for the office of Director under the provisions of Section 257 of the Companies Act, 1956.

None of the Directors of the Company other than Mr. G.P. Kohli is interested in this resolution.

**Item No. 9 :**

Under Section 370 of the Companies Act, 1956, no company shall give any guarantee or provide any security, in connection with a loan made by any other person to, or to any other person by, any body corporate unless the giving of such guarantee or the provision of such security has been previously authorised by a special resolution of the Company.

The Shareholders had passed a resolution at the Annual General Meeting of the Company held on 27th July, 1989 authorising the Board of Directors to give such guarantees or provide such securities upto a limit of Rs.50 crore at any one time. With the increase in the business activities, it has become necessary to revise this limit, hence this resolution.

The Directors recommend the resolution for approval of the shareholders.

None of the Directors of the Company is interested in this item.

**Item No.10:**

The Company would require funds to implement its various expansion and diversification programmes as well as expansion of the existing facilities. For this purpose, the Company may resort to issue of debentures, term loan borrowings and other modes of financial assistance from financial institutions/banks and other lenders.

The shareholders had given their consent to the Board of Directors to create mortgage(s)/ charge(s) on any one or more of the undertakings of the Company for the purpose of securing debentures/term loans/financial assistance, which may be raised by the Company during the course of its business for an amount not exceeding Rs.2000 crore. In view of the expanding volume of business, this ceiling is required to be raised to an amount not exceeding Rs.3500 crore.

Since creating mortgage/charge on the immoveable and moveable properties as aforesaid in favour of the debentureholders or trustees for the debentureholders/financial institutions/banks/other lenders may, in certain cases, be regarded as disposal of the Company's undertakings, it is necessary to pass a resolution under Section 293(1)(a) of the Companies Act, 1956 before creating the said mortgage(s)/charge(s).

The Directors recommend the resolution for approval of shareholders.

None of the Directors of the Company is concerned or interested in this item except to the extent of debentures that may be offered to them by virtue of the shares held by them in the Company, or that may be taken up by them.

**Item No. 11 :**

Section 224A of the Companies Act, 1956 provides that in the case of a Company in which not less than 25% of the subscribed share capital is held whether singly or in any combination, by:

- a) a public financial institution or a Government Company or Central Government or any State Government, or
- b) any financial or other institution established by any Provincial or State Act in which a State Government holds not less than 51% of the subscribed share capital, or
- c) a nationalised bank or an insurance company carrying on general insurance business,

the appointment or re-appointment at each Annual General Meeting of an auditor or auditors shall be made by a special resolution.

The total share capital held by public financial institutions, nationalised banks and nationalised insurance companies is over 25% of the subscribed share capital of the Company. It is therefore necessary that the re-appointment of Auditors should be made by a Special Resolution.

The Directors recommend the resolution for approval of the shareholders.

None of the Directors of the Company is in any way concerned or interested in this resolution.

By Order of the Board of Directors  
for **LARSEN & TOUBRO LIMITED**

**S. V. SUBRAMANIAN**  
COMPANY SECRETARY

*Mumbai*  
*29th May, 1998*

Registered Office:  
L&T House  
Ballard Estate  
Mumbai 400 001

# Review of Operations

1997-98 turned out to be a very difficult year for the Indian economy. The slow-down, witnessed during the second half of 1996-97, deepened further, with major sectors like industry, agriculture and exports registering poor performance. The GDP growth decelerated significantly to 5% from an average of 7.5% during the earlier three years. The slow-down in industrial growth turned out to be more persistent and widespread than expected. Industrial production grew by only 4.2% as compared to 7.1% in 1996-97. The manufacturing sector performed even worse, with a growth of just 3.6%.

The Company manufactures a wide range of sophisticated capital goods for a number of vital industries. The capital goods industry was the first to have been exposed to international competition, with the customs duties having been reduced from a high of 85% in 1991 to 25% in 1997. For the last two years, the industry has been passing through many difficulties. Several projects have either been abandoned or deferred. Liberalised imports of capital goods either under EPCG or at zero duty, anomalies in the customs duty structure and the increase in excise duty from 10% to 13% in 1997-98 budget, adversely affected the capital goods industry and it registered a negative growth of 4% during the year.

The present government has recognised the need to provide a level playing field to the Indian industry and has therefore introduced a special additional customs duty to partly compensate for the local levies such as sales tax, octroi, etc. Unfortunately, a large part of capital goods has been excluded from its purview.

Capital goods industry is the mother industry and a barometer of the extent of industrialisation of the economy. A country cannot become self-reliant without a strong capital goods industry. Over the last many years, considerable capabilities have been built in this area. Lack of orders or anaemic growth will impede technological development of the industry. It, therefore, ought to be nurtured and cared for. The present situation of negative protection to this industry needs to be urgently corrected. We hope this industry will receive its due consideration.

## PERFORMANCE : 1997-98

In spite of the adverse environment, the Company produced good results. Sales and service revenues at Rs.5677 crore, recorded a growth of 7%. Profit before tax at Rs.590 crore registered an increase of 25% and profit after tax was up by 29%. Order booking rose to Rs.6440 crore, an increase of 14% and the order backlog at the end of the year stood at Rs.5250 crore. An extraordinary profit of Rs.108 crore, on account of the sale of the Company's manufacturing facilities for construction equipment at Bangalore, is included in the profit figures.

## ENGINEERING & CONSTRUCTION

Engineering and Construction forms the largest segment of L&T's business portfolio, accounting for 57% of the total sales revenue. The Company has world-class fabrication facilities. Over the years, the Company has built EPC capabilities with state-of-the-art technologies, supported by qualified and

experienced professionals to undertake large projects in core sector and infrastructure.

### Heavy engineering

During the year, the Company manufactured for RPL, the world's largest FCC regenerator, with a diameter of 16.3 m and height of 42 m. The regenerator, weighing a massive 1200 tonnes, is the heaviest pressure vessel to be delivered in a single piece. Considering its size, the regenerator was fabricated in the open fabrication yard at Hazira Works. The manufacture of this equipment is a proof of the excellence of the Company's fabrication capabilities.

The Company manufactured USX and TLX exchangers for IPCL and skid-mounted R.G. boilers with steam drum, including piping as a single unit for the ammonia plant of Madras Fertilizers. For some of these items, L&T is the only manufacturer in India.

In spite of the problems faced by the capital goods industry, the Company managed to secure large orders, both for the traditional and highly sophisticated products like carbamate condensers, boilers, heat exchangers, absorbers, reactors, regenerators and ammonia converters.

### Projects

During the year, the Company commissioned 1.2 million tonnes capacity cement plant for ACC, Kymore and cryogenic air separation plant for Indogulf Fertilizers and Chemicals. The Company completed supplies for Zuari Cement's upgradation project which is now under erection and for ONGC's HRC process platform for which the offshore installation has begun as per schedule. The Company carried out a 90-day sustained load test for the carbon monoxide plant of RCF. Heat Recovery Steam Generator (HRSG) for desalination plant for L&T's Gujarat Cement Works is expected to be commissioned shortly.

The prestigious continuous slab caster for Bokaro Steel Plant of SAIL was commissioned during the year and hot trials were carried out successfully. The Company also commissioned and carried out performance guarantee test-run of hot rolling steckel mill at Salem Steel. Other projects under implementation include, the coal handling system for India's largest coal terminal of Paradeep Port in Orissa and skid-mounted semi-mobile crushing system for the Mumbai-Pune expressway project.

Oil refineries in India have initiated steps to bring down the sulphur content in diesel to a level of 0.25% by 1999. The Company, as the only qualified Indian bidder, was successful in securing major orders from the ongoing Diesel Hydro-Desulphurisation (DHDS) projects against stiff global competition. These are lump sum turnkey projects and the Company's scope includes detailed engineering, supplies, construction and commissioning of the main DHDS units, sulphur recovery blocks, hydrogen plants and offsites and utilities.

A repeat order was booked from Jindal Praxair for cold box and cryogenic storage facilities for the world's largest air separation plant with a capacity of 2700 tpd of oxygen. In the fertilizer sector, the Company achieved a break-through in turnkey project business by securing the first major process package from RCF, involving the revamp of the complete synthetic loop section.

The orders booked in the area of bulk material handling include design, manufacture, erection and commissioning of 4000 tph capacity stackers and reclaimers for Paradeep Port - the largest ever in India. The Company also received orders, for the first time in India, for barrel reclaimers from TISCO and for bridge reclaimer from Neelachal Ispat.

### Power

The Company has identified power as one of the thrust areas, both as a power developer and as EPC contractor. Considerable capabilities have been built in this area over the past few years.

The 574 MW thermal power project at Bhilai, promoted jointly with Community Energy Alternative (CEA), USA and SAIL is progressing satisfactorily and the Company expects to achieve financial closing very shortly. LOIs have already been placed for major equipment. The Company, along with CEA, has been selected by Cochin Refinery as a joint venture partner for its 522 MW power project. The project, based on refinery residue, envisages the use of environment-friendly integrated gasification combined-cycle technology.

The Company is also in the process of executing the following power projects:

- 46 MW coal based captive power plant for Awarpur Cement Works - already commissioned and synchronized; expected to be fully operational shortly.
- 50 MW cogeneration captive power plant for Gujarat Cement Works—expected to be operational by mid-1999.
- 90 MW combined cycle cogeneration power project of Gujarat Alkalis & Chemicals – open cycle commissioning of gas turbines completed; combined cycle commissioning expected to be carried out shortly.
- 116 MW combined cycle cogeneration power plant for Haldia Petrochemicals on BOO basis – installed capacity of 116 MW, 480 tph of SHP steam and 44 tph of MP steam primarily for the captive use of Haldia Petrochemicals. The plant will have gas turbines, condensing and back pressure steam turbines, heat recovery units and auxiliary boilers. L&T has set up a special purpose vehicle, HPL Cogeneration Limited, for implementing the project.
- 90 MW cogeneration captive power plant for IPCL on BOLT basis – the plant consists of two LM-6000 gas turbines, two fully fired dual-pressure HRSGs with induced draft fans and vapour absorption regeneration system for boosting power output of gas turbines.

### Construction

Despite general slow-down in the construction activity in the country, the Company recorded good growth during the year.

Some of the major projects completed during the year include building works for Perfect Circle and Spicer India; civil, mechanical and electrical works for Binani Cements; mechanical and electrical works for ACC; civil and structural works for Hyundai, Mahindra-Ford, ITC, Sinar Mas and ICICI. The International Technology Park at Bangalore was completed within a tight time schedule. The construction work at RPL's refinery at Jamnagar established records in concrete poured and construction of piperacks using slipform technique for fast construction.

Two IDCT and 275 m RCC multi-flue stack for CESC and piling, civil, structural works and equipment erection for RIL at

Patalganga were completed during the year. The fabrication and erection of stacks for Birla Copper at Dahej was also completed. The Company erected 66 kV double circuit transmission line towers for KEB, 12 m rooftop tower and 70 m backbone towers for Fasel, Ahmedabad and commissioned 230 kV substation for Hyundai car project.

In spite of the recession in steel sector, major orders were received from TISCO, Jindal, Ispat and Bellary Steels. The Company also secured orders from major corporates like Crompton Greaves, IL&FS, ITC, Piramals, Wipro, BAAN, Kvaerner Power Gas, RPL and MALCO, and from various educational institutions like IITs, Manipal Pai Foundation and Christian Medical College. In the telecom sector, the Company received order from Bharti Telelink for the basic telephone network.

In the automobile sector, orders were received from international companies like Toyota-Kirloskar, Hyundai, Maruti Udyog and MICO. Orders for state-of-the-art paint shops from Hyundai and Mahindra-Ford are being executed in technical collaboration with Durr, Germany. The Company also received orders for overhead electrification from Central Organisation for Railway Electrification, 230 kV sub-station for Hyundai Engineering & Construction and supply and erection of transmission line towers for various clients.

### Infrastructure

L&T has identified infrastructure as a thrust area for growth and is geared to undertake projects in roads, bridges, tunnels, ports, etc. In the roads and bridges sector, the Company received prestigious orders for construction of Coimbatore bypass, a section of Mumbai-Pune expressway, Ranikanj-Barakar road and 1.32 km Narmada bridge in Gujarat. To implement some of these projects on BOT basis, special purpose vehicles (SPVs) have been formed. The 550 m long, 16 m wide prestressed concrete Nizamuddin bridge in Delhi was completed ahead of schedule by adopting for the first time in India, the jackdown system of well sinking. Product jetty and causeway bund at Vadinar for Essar Oil and causeway for RPL were also completed.

The Company's joint venture, International Seaports Pte Limited, has recently signed a concession agreement with the Government of Orissa for development of a port at Dhamra.

The first phase of the software technology park 'HI-TEC City' at Hyderabad, being implemented by L&T Infocity Limited, is progressing at a fast pace and nearing completion. The Vizag-Vijayawada pipeline project and Mahi river crossing near Baroda by HDD method were completed during the year. The Company received good orders for water supply and treatment, another thrust area.

To strengthen its engineering capabilities in the infrastructure sector, the Company set up a joint venture, L&T-Ramboll Consulting Engineers Limited, with Ramboll, Denmark. The Company is also associated, on a project specific basis, with Christiani & Nielsen, UK, for offshore pile driving and annular precast prestressed piles and with Dar Consultants, UK, for segmental construction of bridges.

The various R&D activities carried out and innovative construction methods adopted by the Company helped achieve productivity improvements. Use of high density fibre overlaid plywood for formwork was successfully tried for the first time in India.



The tallest prilling tower, with a height of 117-m, was completed for CFCL in a record time of three months. An innovative space-frame construction technique was adopted for the Mass Rapid Transit System in Chennai. For the first time, 66 kV DC narrow-based towers were designed, supplied and erected for KEB, with both circuits on one side.

The Company won many awards during the year. These include "ICI-Mc Baüchemie Award" for the Most Outstanding Concrete Structure for 1996-97 for L&T's own convention centre at Chennai, first prize for "Highest Turnover on Project Exports" and second prize for "Maximum Repatriation of Foreign Exchange" from Overseas Construction Council of India, ACCE - Billimoria award 1998 for excellence in construction of high rise building for International Technology Park, Bangalore, ACCE - Sarvamangala award 1998 for excellence in construction in the field of Civil Engineering for Kanteerava Indoor Stadium, Bangalore. The Kanteerava Stadium has also been awarded a certificate of special mention as 'Outstanding Structure - 1998' by the Federation Internationale de la Precontrainte.

## CEMENT

L&T cement continued to enjoy a leadership position due to its consistently high quality. The total cement and clinker sales during the year at 6.77 million tonnes showed an increase of 23% over the previous year. The overall capacity utilisation of the Company's operating plants was over 100%.

During the year, the second phase of Gujarat cement plant was commissioned. The new 2 million tonnes capacity cement plant at Tadpatri in Andhra Pradesh has also since been commissioned. The total cement production capacity of the Company now stands at 10.65 million tonnes per annum.

The Indian cement industry passed through a very difficult year. Although there was a healthy growth of over 9% in demand, prices were under severe pressure. This was largely because of a demand-supply mismatch. At the same time, the industry was burdened with increases in input costs.

With a slow-down in capacity addition and increased emphasis on infrastructure development and housing, it is expected that the prices will improve in the near future.

## ELECTRICALS AND ELECTRONICS

L&T maintained its leading position in low voltage switchgear and petrol pumps. Launch of new products helped it to increase the market share for standard switchgear products. Significant growth was registered in switchboards with major orders from Reliance, BHEL, IPCL, Mukand, DLF, HPCL, ACC and Essar. Despite increased competition, large orders for petrol pumps were secured from the oil companies.

During the year, the Company booked orders for electronic trivector and energy meters from various utilities such as BSES, GEB, KEB, TNEB, APSEB and UPSEB. L&T has substantial presence in the area of control and automation in metal and cement industries. In Medical Equipment Division, the first indigenously designed patient monitoring equipment, 'Stellar' was well received in the market. A new model of ultrasound scanner, offering non-volatile image memory facility, was launched for the first time in the country.

## CONSTRUCTION EQUIPMENT

The fortunes of the construction equipment industry are closely linked with investments in infrastructure and core sector industries.

The economic slow-down and lack of investment in infrastructure had an adverse impact on the industry. In order to maintain the leadership position and also to ensure continuous technology upgradation, the Company set up a joint venture, L&T-Komatsu Limited with Komatsu of Japan - a global leader in earthmoving and construction equipment. The existing manufacturing facilities for excavators at Bangalore were sold and transferred to L&T-Komatsu. L&T will continue to handle the marketing and after-sales service. The Company sold its 1000th loader backhoe during the year. The Company is also planning to set up another joint venture for loader backhoes, presently being manufactured at Pithampur.

The Company, for its Bangalore Works, was awarded 'Golden Peacock National Quality Award' for the year 1997 by the Institute of Directors.

## SHIPPING

At the EGM held in December 1997, the shareholders had approved the sale of Company's ships. Unfortunately, the depression in the shipping industry and the low prices of second-hand vessels made the process of disposal difficult. However, the Company is still continuing with its efforts.

## INTERNATIONAL BUSINESS

Sustained marketing efforts and the past performance has helped the Company to get recognition in the overseas market as a reliable supplier of critical equipment.

In the engineering sector, many overseas projects were successfully executed during the year. For the first time in India, ASME code stamped carbamate condenser was manufactured and supplied to Petronas Fertilizer, Malaysia. The Company also exported seven reactors for AGR Project of Kuwait National Petroleum Company through Sunkyoung Engineering & Construction, South Korea, and 15 pressure vessels for Raslaffan LNG Project, Qatar, through JGC Corporation, Japan. Urea hydrolyser project of QAFCO, Qatar, was executed on a turnkey basis.

The Company received a prestigious order for ammonia converter and seven high pressure heat exchangers for a 2000 tpd ammonia project in Indonesia, one of the largest plants in the world. It is for the first time that such critical equipment will be exported from India. Orders were also received for sophisticated equipment like converter basket and secondary reformer for a fertilizer project in Abu Dhabi; heat exchangers, boilers and steam drums from Black & Veatch Pritchard, USA, for Saudi Aramco Shedgum gas project; para-formaldehyde plant from Saudi Formaldehyde Chemical Company, Saudi Arabia and crushing and grinding plant from Binani Cement for its plant in Dubai. The Company received repeat orders from General Electric, USA, for hoods and casings for a project in Japan.

In the Construction segment, supply and installation of 33 kV double circuit overhead line and submarine cable works for the Water and Electricity Department (WED), Abu Dhabi, was completed. A repeat order was secured from WED.

During the year, the Company exported 10.76 lakh tonnes of clinker and cement. L&T was the largest exporter from India, accounting for 25% of country's cement related exports. The cement was very well received in the international markets. However, the prices were under severe pressure due to the South East Asian crisis. Many of the cement exporting countries like Thailand, Indonesia and South Korea exported cement at distress prices.



The Company exported air circuit breakers to Malaysia, petrol pumps to Kenya and bedside monitors to its erstwhile collaborator, Kontron Instruments, UK, for its global requirement.

## RESEARCH & DEVELOPMENT

The Company has well-developed R&D facilities to carry out applied research in the areas of gas turbine based power plants handling multiple fuels, high-temperature creep analysis, fluid-flow analysis in complex structures, servohydraulic controls and utilisation of fly ash generated in power plants for the manufacture of cement. In the area of mineral dressing and processing, a 1000 tpa wobbler was developed, improving efficiency of crushing systems.

One of the major strengths of L&T in the electrical sector, is its in-house R&D facilities. The Company introduced new designs and ratings of contactors, switch-disconnector fuses and current limiting moulded case circuit breakers. A new design of motor control centre with energy-efficient interleaved busbar system was also introduced. A test facility for electromagnetic compatibility testing, as per international standard IEC-1000, was commissioned during the year.

A new semi-rapid motor was developed for construction equipment, bridging the gap between high-torque-low-speed and high-speed-low-torque motors. It finds application in winches for mobile cranes and blast hole drills. The redesign of axial machine and other modification in loader backhoe provided new features, better reliability and improved serviceability.

## INFORMATION TECHNOLOGY

In today's competitive world, information technology plays an important role in improving efficiency and productivity and making the operations world-class. The Company embarked on a major effort to integrate its multi-product, multi-locational activities by implementing Enterprise Resource Planning (ERP) in some of its major groups.

The Company has its own communication network, LNTNET, with a number of locations connected through dedicated VSATs. This network is being further strengthened and upgraded. E-mail is being extensively used in communication and the objective is to make the Company a paper-less organisation by 2000.

## TOTAL QUALITY MANAGEMENT

The TQM movement, started four years ago, has taken deep roots and is helping the Company face the challenges of competition through the change management process.

Today, a large number of teams are working on various improvement projects. Many of these have completed their assignments, resulting in substantial cost savings, cycle time reduction and enhanced customer satisfaction. The Small Group Activities help in building team culture and structured problem solving methods. The TQM concept was extended to stockists and suppliers, who also formed part of some of the improvement teams. The Company also undertook business process re-engineering and made use of large scale interactive processes in some of its units.

## PEOPLE

Over the past few years, the Company has reviewed its various people-related processes like performance appraisal and rewards, job rotation, career development, etc. This exercise gathered

further momentum during the year. The Company also initiated training of workmen in behavioural aspects. It continued efforts to educate employees on the importance of positive health and launched a special training campaign on AIDS. The Company's residential Management Development Centre at Lonavla is now fully operational. These efforts will certainly go a long way in improving the overall effectiveness of the organisation.

## SAFETY

The Company has always placed emphasis on safety at workplaces and at sites. To increase the safety awareness, number of training programmes were conducted and a comprehensive safety manual was also distributed to all employees. L&T's Construction Group became the only unit outside USA, to receive the safety improvement award from the American Society for Concrete Construction, in recognition of the excellent safety record achieved at most of its construction sites.

## SUBSIDIARY COMPANIES

### LTM Limited

The sales and other income of the Company declined marginally to Rs.75 crore from Rs.76 crore achieved last year. The order booking position was, however comfortable at Rs.71 crore, an increase of 70% over the previous year. Profit after tax was Rs.9 crore, up from Rs.6 crore last year. The net worth stood at Rs.25 crore against the share capital of Rs.7.5 crore.

The Company did very well on the export front, with order booking of Rs.24 crore as against Rs.9 crore in the previous year. The export sales at Rs.24 crore was more than twice the sales of Rs.11 crore in 1996-97. The Company exported tyre curing presses to Pirelli, an international tyre major, for their plant in UK. LTM became the first machinery manufacturer in India, to be authorised to use, for one of its models of tyre curing presses, CE marking (declaration of conformity to applicable directives) - a prerequisite for exports to Europe. The Company also received the export house status.

The Company continued its emphasis on in-house R&D and developed improved designs of tyre curing presses and a new tyre building machine for radial tyres. Injection moulding machines were upgraded to meet the requirement of thin-walled containers for packaging. Such machines were so far imported.

### L&T Finance Limited

The total income of the Company for the year ended 31st December 1997 at Rs.57 crore, registered a growth of 84% over the previous year. Income from leasing and hire purchase contracts accounted for over 73% of the total income. The Company recorded profit after tax of Rs.9 crore. Total assets grew by 63%. A business volume of over Rs.316 crore was achieved under various corporate finance products.

L&T Finance is expanding its capabilities to establish non-funded revenue streams and plans to focus on investment advisory services and intermediation in money market products. During the year, CRISIL reaffirmed its credit rating of FAA- for the Company's fixed deposit programme.

### L&T Information Technology Limited

To give a proper focus to the software business which has tremendous potential, the activity was hived off into a separate

company. The total income of the Company for the year was Rs.91 crore. Profit after tax was Rs.18 crore.

The Company's activities are concentrated mainly in USA, Europe, Canada and Japan. Several new projects were executed for very large corporations involved in diverse businesses like financial services, telecom, insurance and manufacturing. An agreement was entered into with Hitachi for setting up an offshore development centre at Chennai.

The Company has identified internet related development, ERP, embedded software, Y2K and Euro currency conversion as the thrust areas. The Company is also developing skills in higher value added CAD, GIS and engineering design services with Pro/Engineer, Arc/INFO and CATIA Packages.

## ASSOCIATE COMPANIES

### Audco India Limited

Sales and other income of the Company amounted to Rs.126 crore, as against Rs.121 crore in the previous year. Profit after tax registered a growth of 12% to reach Rs.13 crore. The net worth stood at Rs.64 crore against the share capital of Rs.18 crore.

The Company achieved export order booking of Rs.38 crore and sales of Rs.29 crore. Its products were exported to USA, Europe, Australia, South Africa and the Middle East. Gate valves were approved by major international oil companies like Shell, the Netherlands; Texaco, USA and Aramco, Saudi Arabia. The range of gate, globe and check valves was expanded during the year.

### Ewac Alloys Limited

Income from sales, servicing and other sources amounted to Rs.43 crore as against Rs.48 crore in the previous year. Profit after tax for the year was Rs.10 crore. The net worth of the Company stood at Rs.41 crore against the share capital of Rs.9.8 crore.

The Company commenced during the year, production of aluminium bronze manual metal arc electrodes and custom electrodes for steel industry. Product development includes special stainless steel electrodes, electrodes for repairs of automotive dies and new polymer compounds for cold repair applications. A cost-economic welded wear plate was successfully developed through in-house R&D programme.

### Tractor Engineers Limited

Sales and other income declined from Rs.49 crore to Rs.43 crore, due to slow-down in the earthmoving industry, lack of fresh investments in infrastructure projects and competition from imports. Profit after tax at Rs.3.6 crore was also lower compared to Rs.3.7 crore for the previous year. The networth of the Company stood at Rs.26 crore against the share capital of Rs.6.8 crore. The Company commissioned its manufacturing facilities at Navi Mumbai.

### L&T-Niro Limited

The Company received an order from IPCL for 24 tph close-cycle fluid-bed drying system for HDPE, the largest in the world, based on know-how from Hoechst, Germany. Orders were received for three fluid bed coolers of 180 tph capacity, the largest in the world for DAP plants in fertilizer industry.

### L&T-Chiyoda Limited

During the past three years, the Company has provided engineering services to over 150 projects in India and abroad. Some of the major projects being executed for L&T include hydrogen plants for IOCL and sulphur recovery units for BPCL and MRL. An order was also received for providing engineering consultancy services for the proposed butadiene unloading facility of IPCL.

The Company provided engineering and procurement assistance to Chiyoda Corporation for major projects such as benzene, aromax, cyclohexane facilities for Saudi Chevron Petrochemicals, Saudi Arabia; ship breaking project for Gujarat Pipavav Port and Kirlskar-Toyota plant at Bangalore.

### L&T-Sargent & Lundy Limited

The Company made substantial progress on detailed engineering of 50 MW captive power plant for L&T's Gujarat Cement Works and 116 MW power plant for Haldia Petrochemicals.

The Company offered services as owner's and lender's engineers, carried out due diligence studies for power projects and residual life assessment studies for boilers in power plants. The Company makes extensive use of information technology systems which were upgraded during the year.

## PROSPECTS

The Company took various steps during the year to re-structure its business portfolio - the construction equipment manufacturing at Bangalore was sold and transferred to a 50:50 joint venture with Komatsu; software development activity was spun-off into a 100% subsidiary to get proper focus; shoe manufacturing activity has been closed down; efforts are on to sell the shipping division. The Company's focus today is on engineering and construction, cement, electricals, construction equipment and information technology. The objective clearly is to establish leadership and to make the operations world-class and increasingly competitive.

The Company has laid great emphasis on building strengths and capabilities through initiatives such as TQM, BPR, information technology and human resource development. Efforts are also directed at reducing costs and improving deliveries. It is the quest for excellence that enables the Company to undertake challenging high technology jobs. The ultimate aim is to enhance shareholders' value.

It is hoped that the Indian economy will change for the better in the near future. Even a modest revival of industrial activity will provide ample opportunities for the Company in core sector industries. The Company is also well poised to take advantage of opportunities in the infrastructure sector, i.e. power, telecommunication, roads, bridges, ports, etc.

With these opportunities and efforts made in re-structuring and building strengths and capabilities, the Company is confident of withstanding the rigours of international competition and emerging successful in the new millennium.

S.D. Kulkarni  
Managing Director &  
Chief Executive Officer

Mumbai,  
4th June, 1998