



ANNUAL REPORT 2013-14



COMPANY INFORMATION

BOARD OF DIRECTORS

Mr. K. Venkataramanan
Managing Director

Mr. U. Dasgupta
Whole-Time Director

Mr. K. Ravindranath
Whole-Time Director

Mr. R. Shankar Raman
Non-Executive Director

Mr. N. Hariharan
Non-Executive Director

Mr. Vikram Singh Mehta
Independent Director

Mr. S. Behuria
Independent Director

Mr. A. K. Balyan
Independent Director

COMPANY SECRETARY

Mr. P. S. Kapoor

STATUTORY AUDITORS

M/s. Sharp & Tannan

REGISTERED OFFICE

L&T House, Ballard Estate,
Mumbai 400 001

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DIRECTORS' REPORT

The Directors have pleasure in presenting the Fifth Annual Report and Accounts for the year ended March 31, 2014.

CHANGE IN NAME & OBJECTS

The Shareholders of the Company at their Extra-Ordinary General Meeting held on May 16, 2013 approved change in name of the Company from "L&T Technologies Limited" to "L&T Hydrocarbon Engineering Limited" and change in Objects of the Company in order to appropriately reflect the new business profile. During the year, the Hydrocarbon Business undertaking ("HC Undertaking") of Larsen & Toubro Limited ("L&T") was transferred to the Company with effect from April 1, 2013 ("Appointed Date") pursuant to a Scheme of Arrangement approved by the Honourable Bombay High Court under Sections 391 to 394 of the Companies Act, 1956.

FINANCIAL RESULTS

Summary of Financial Results of the Company is as follows:

Particulars	2013-2014 (₹ Crore)
Turnover (gross)	8,737.03
Profit before Depreciation, Interest, Taxes & Amortisation	305.84
Less: Depreciation & Amortisation	100.05
Profit before Interest & Taxes	205.79
Less: Interest	41.96
Profit before Tax	163.83
Less: Tax	58.10
Profit after Tax	105.73

The financial results of the Company for the year include the results of HC undertaking from April 1, 2013 & hence are not comparable with those of previous year.

YEAR IN RETROSPECT

The gross sales for the financial year under review were ₹ 8,737.03 crore. The Profit before tax was ₹ 163.83 crore and the Profit after tax was ₹ 105.73 crore for the financial year under review. The profitability of the Company was adversely affected by cost overruns in certain tightly bid international projects. Most of these projects were first of its kind with respect to size & scale, technical complexity, customer expectations and situated in remote geographic locations.

SCHEME OF ARRANGEMENT

The Board of Directors of the Company at its Meeting held on May 22, 2013 approved a Scheme of Arrangement ("the Scheme") between L&T and the Company and their respective Shareholders and Creditors.

As per the Scheme, the HC undertaking of L&T along with related assets, liabilities, specific identified reserves, employees, and other items specifically listed in the Scheme were vested and transferred to the Company on a going concern basis with effect from April 1, 2013 ("Appointed Date").

The aforementioned Scheme was sanctioned by the Honourable Bombay High Court vide its order dated December 20, 2013 and it came into effect on January 16, 2014 ("Effective Date").

The Scheme will enable the Company to achieve the following objectives:

1. Attracting and retaining domain intense talent.
2. Focused leadership & Management attention
3. Developing and strengthening competencies already built in the HC Undertaking
4. Creating a niche in the Hydrocarbon sector towards building a strong brand image.
5. Capitalizing on the global growth opportunities in Hydrocarbon sector.
6. Providing greater levels of empowerment to enhance competitiveness, increase accountability and strengthen performance culture.
7. Facilitating benchmarking with established global peers in the Hydrocarbon sector, thereby bringing in improved efficiency in its operations, enhanced competitiveness & accountability and strengthen performance culture.
8. Enhancing Shareholder Value.

DIVIDEND

The Directors recommend payment of dividend of ₹ 0.1452 per preference share of ₹ 10/- each being pro-rata dividend at coupon rate of 10% p.a. from date of allotment of shares till end of financial year. The Directors do not recommend any dividend on equity shares for the financial year 2013-14.

CAPITAL & FINANCE

During the year under review, the Company allotted 100 Crore Equity Shares of ₹ 10 each and 50 Crore 10% Non-Convertible Redeemable Preference Shares of ₹ 10 each to Larsen & Toubro Limited, the holding company.

The Company has also raised ₹ 260 Crores from the holding company as long term Inter Corporate Deposit and ₹ 339.70 Crores as short term Inter Corporate Deposit.

CAPITAL EXPENDITURE

As at March 31, 2014, the gross fixed and intangible assets, stood at ₹ 1,371.78 crore and the net fixed and intangible assets, at ₹ 944.71 crore. Capital expenditure during the year amounted to ₹ 248.06 crore in addition to acquisition of Net Fixed Assets of ₹ 923.38 crore as part of the Scheme.

DEPOSITS

The Company has not accepted any deposits from public during the financial year ended March 31, 2014.

AUDITORS' REPORT

The Auditors' Report to the Shareholders does not contain any qualification.

DISCLOSURE OF PARTICULARS

Information as per the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988, relating to Conservation of Energy, Technology Absorption, Foreign Exchange Earnings and Outgo is provided in Annexure 'A' forming part of this Report.

PARTICULARS OF EMPLOYEES

List of employees covered by the provisions of the Section 217(2A) of the Companies Act, 1956, read with the Companies (Particulars of Employees) Rules, 1975 is provided in Annexure 'B' forming part of this Report.

DIRECTORS' RESPONSIBILITY STATEMENT

The Board of Directors of the Company confirms that:

- i. in the preparation of the annual accounts, the applicable Accounting Standards have been followed;
- ii. the Directors had selected such accounting policies and applied them consistently, made judgments and estimates that are reasonable and prudent so as to give a true and fair view of the state of affairs of the Company as at end of the financial year and profits of the Company for that period;
- iii. the Directors had taken proper and sufficient care for the maintenance of adequate accounting records in accordance with the provisions of the Companies Act, 1956 for safeguarding the assets of the Company and for preventing and detecting fraud and other irregularities;
- iv. the Directors had prepared annual accounts on a going concern basis; and
- v. the Directors had devised proper systems to ensure compliance with the provisions of all applicable laws and that such systems were adequate and operating effectively.

DIRECTORS

At present, the Board comprises of Mr. K. Venkataramanan, Mr. R. Shankar Raman, Mr. N. Hariharan, Mr. U. Dasgupta, Mr. K. Ravindranath, Mr. Vikram Singh Mehta, Dr. Ashok Kumar Balyan and Mr. Sarthak Behuria.

Mr. K. Venkataramanan was designated as Managing Director with effect from February 6, 2014.

Mr. U. Dasgupta, Mr. K. Ravindranath, Mr. Vikram Singh Mehta, Dr. Ashok Kumar Balyan and Mr. Sarthak Behuria were appointed as Additional Directors with effect from February 6, 2014 and they hold office upto the date of the ensuing Annual General Meeting. Resolutions proposing their appointment will be placed before the shareholders for their approval.

Mr. U. Dasgupta & Mr. K. Ravindranath were designated as Whole Time Directors with effect from February 6, 2014.

Mr. K. Venkataramanan retires by rotation and being eligible, offers himself for re-appointment.

The proposal for re-appointment of Mr. K. Venkataramanan will be placed before the shareholders for their approval at the ensuing Annual General Meeting.

AUDIT COMMITTEE

The Audit Committee was formed during the year. It is comprised of three Non-Executive Directors. The present members of the Audit Committee are:

1. Mr. R. Shankar Raman
2. Dr. Ashok Kumar Balyan
3. Mr. Vikram Singh Mehta

NOMINATION & REMUNERATION COMMITTEE

The Nomination & Remuneration Committee was formed during the year. It is comprised of two Non-Executive Directors and the Managing Director. The present members of the Nomination & Remuneration Committee are:

1. Mr. K. Venkataramanan
2. Mr. R. Shankar Raman
3. Mr. Sarthak Behuria

AUDITORS

The Auditors, M/s. Sharp & Tannan, Chartered Accountants, being Statutory Auditors of the Company, hold office until the conclusion of the ensuing Annual General Meeting.

Certificate from the Auditors has been received to the effect that their re-appointment, if made, would be within the limits prescribed under Section 141(3)(g) of the Companies Act, 2013.

COST AUDITORS

Pursuant to the Cost Audit Order dated January 24, 2012 issued by the Ministry of Corporate Affairs (MCA), the Board of Directors had appointed M/s. R. Nanabhoy & Co., Cost Accountants, as Cost Auditors for audit of cost accounting records of "Machinery and Mechanical appliances" under MCA Cost Audit Order No. 52/56/CAB-2010 dated November 6, 2012, for the Financial Year ended March 31, 2014.

The Report of the Cost Auditors for the Financial Year ended March 31, 2014 is under finalization and will be filed with the MCA within the prescribed period.

ACKNOWLEDGEMENT

The Directors take this opportunity to thank the employees of the Company, Customers, Vendors and business associates, management of the Holding Company, Central and State Government authorities, Regulatory authorities, and all the various stakeholders for their continued co-operation and support to the Company.

For and on behalf of the Board

Place : Mumbai
Date : April 29, 2014

K. VENKATARAMANAN
Managing Director

ANNEXURE 'A' TO DIRECTORS' REPORT

(Additional information given in terms of notification issued by the Ministry of Corporate Affairs)

A. CONSERVATION OF ENERGY

(a) Energy Conservation measures taken:

1. Improving Energy Effectiveness/Efficiency of Equipment and Systems

- Installation of 2 X 400 KVAR capacitor bank with Automatic Power Factor Correction Controller
- Improvement in Power Distribution network to eliminate use of DG set during peak load of works and for E&I testing works.
- Use of vacuum packs for welding electrode to eliminate use of heating oven for storage of welding electrode
- Replacement of Conventional Choke to Electronic Choke
- Replacement of Florescent tube from T8 to T5
- Installation of CFL light fitting in new office facilities
- Procurement of Star rated Air Conditioners for newly built facilities & progressively migrating from Zero Star rated Air Conditioners to Five Star rated Air Conditioners
- Introduction of battery operated cart for transportation within campus
- Usage of Sewage Treated Water for Gardening at campus

2. Improving Energy Effectiveness/Efficiency of Manufacturing Process:

- Use of Inverter based CHAMP 400 Welding Machines to reduce input power consumption by 4.59 KW per hour
- Installation of Variable Frequency Drive in the 600 CFM Compressor to reduce energy consumption
- Use of Variable frequency drive in motors for EOT Cranes, Tank Rotators, Trolleys to improve motor efficiency

(b) Additional investments & proposals, if any, being implemented for reduction of consumption of energy:

- Implementation of Energy Management System ISO 50001
- Plan to replace the balance T8 florescent lamps and conventional chokes with energy efficient T5 lamps and electronic chokes respectively.

(c) Impact of measures at (a) and (b) above for reduction of energy consumption and consequent impact on the cost of production of goods:

The measures taken have resulted in savings in cost of production, cost of power consumption, energy savings and reduction in maintenance cost, reduction in processing cycle time.

(d) Total Energy Consumption and Energy Consumption per unit of production as per Form A in respect of industries specified in the Schedule:

The Company provides engineering, procurement & construction solutions on turnkey basis in oil & gas, petroleum refining, chemicals & petrochemicals and fertilizer sectors and pipelines. Hence, disclosures in Form A are not applicable to the Company.

B. TECHNOLOGY ABSORPTION

Efforts made in technology absorption as per Form B

FORM B

(Disclosure of particulars with respect to Technology Absorption)

RESEARCH AND DEVELOPMENT (R & D)

1. Specific areas in which R&D carried out by the Company:

The Company has well-established R&D facilities for carrying out applied research in the areas of Chemical Engineering, Material Science & Corrosion, Thermal Engineering, Machinery & System Engineering, Mechanical Engineering and Water Technologies.

Research work is currently focused on the following:

• Chemical Engineering

Design, analysis and simulation of chemical processes and equipment, with special emphasis on Gas Processing applications (Gas/Liquid Separation, Condensate Fractionation, Gas Dehydration, Gas Sweetening Units and C2/C3/C4 component recovery Systems); Process simulation for Ammonia and Urea Plants; Process Engineering for Gas Compressor

Modules; Flow simulation studies for Oil & Gas Projects; Refractory engineering for Fertilizer and Refinery Plant equipment; Modeling and process simulation of fixed bed and entrained bed Coal Gasifiers; Failure analysis and troubleshooting of various process units such as Steam Generators, Thermo-siphon system, Pressure Swing Adsorption unit, HP/LP Flash Drum and Gas Compressors.

- **Material Science & Corrosion Engineering**

Material selection, verification and characterization for Gas Processing Plants and LNG pipelines / terminals; Risk assessment for corrosion damage in gas processing equipment and flowlines; Galvanic corrosion studies for subsea pipelines; Development of Corrosion Management Plan for Oil & Gas projects; Failure Analysis studies for equipment and components (such as waste heat recovery system, heat exchangers, Reformer tubes, Turbine blades, valves, fasteners, fittings, coatings etc.); Preservation and restoration techniques for critical systems; Eco-friendly corrosion inhibitors; Chemical cleaning / surface engineering of metals and non-metals; Characterization of composites with state-of-art instrumentation; Nano-materials for strategic applications.

- **Thermal Engineering**

Application of CFD technique in design optimization and troubleshooting of equipment and systems (such as flare and exhaust stack, gas dehydration and gas sweetening units, multi-phase separators); Safety studies for safe helideck operation at offshore platforms; Radiation and dispersion analysis; Check-rating and design optimization of waste heat recovery coils and heat exchangers; Support for commissioning of boiler, offshore wellhead platform and process platform; String Testing of Process Gas Compressor modules for Offshore Platform; Failure analysis and troubleshooting involving heat exchangers, boilers, heaters and furnaces; Low-temperature thermal desalination processes; Dynamic Simulation study of sub-critical and supercritical power plants; Waste heat recovery from the intermittent sources in Process Plants; CFD Analysis of natural convection heat transfer in complex geometries; Dynamic simulation of equipment and processes using Continuous Simulation Language.

- **Machinery & System Engineering**

Advanced studies in Vibration and Acoustics for machinery and piping; Fatigue Life assessment of process piping considering flow-induced and acoustic induced vibration; Lateral and Torsional Vibration analysis for turbines and compressors; Troubleshooting of vibration problems in steam turbines, centrifugal compressors, HP/LP Flash Drum structure and electric drive motor; Failure analysis of deck crane, mud pumps, gearboxes and slewing bearings in offshore platforms; Noise Assessment studies for Gas Processing Plant and Wellhead Platform; Design improvement/optimization studies for Coal Pulverizes units in Supercritical Boilers; Technical support during Acceptance Test and Commissioning for critical machinery.

- **Mechanical Engineering**

Troubleshooting through dynamic analysis of integral systems involving piping, equipment and support structure using advanced Finite Element Analysis; Buckling analysis of sub-sea pipelines and onshore buried pipelines; Fitness For Service (FFS) assessment of in-service equipment and structures containing damage or flaws; Thermal-Structural analysis of process equipment being subjected to high temperature gradient; Motion induced fatigue analysis of equipment mounted on offshore floating platforms; Experimental stress analysis of critical offshore equipment such as pedestal deck crane and residual stress measurement on turbine rotor.

- **Water Technologies**

Total water management solutions including technology evaluation, design & detailing of water / wastewater facilities for Oil & Gas - Upstream & Mid & Downstream sector; Oil-water Separation processes; Waste minimization / recycling studies; Troubleshooting of feed water treatment system in Steam Boiler; Troubleshooting of Condensate Polishing Unit (CPU) in Fertilizer Plant; Methodologies for achieving Zero-discharge from plants; Testing for water & wastewater characterization; Lab-scale pilot plant studies for treatability aspects of water and wastewater; Review of advanced treatment technologies such as Sea Water/Brackish Water Thermal Desalination, Membrane Bioreactor, Sequential Batch Reactor, Up-flow Anaerobic Sludge Blanket Reactor etc.; Review of innovative technologies for reject water management.

R&D Laboratories in the areas of Vibration & Acoustics, Experimental Stress Analysis, Materials Technology, Corrosion Studies and Water Technology have been upgraded by addition of new, state-of-the-art instruments and software tools to carry out the above studies effectively.

The research facilities are augmented with the latest computer workstations, operating systems and communication network / data storage facilities. A fully E-enabled Technical Library, having a large collection of technical publications, research journals and product/technology databases further supplement the R&D resources. Emphasis is given on creating Intellectual Properties (IP) and managing the Intellectual Property Rights (IPR). The R&D Centre has been involved in active networking with Professional Societies, R&D Laboratories and Academic Institutes.

2. Benefits derived as a result of above R&D:

- Complete process simulation, design solutions and optimization for Hydrocarbon projects in Fertilizer sector, involving Reformers, Ammonia Plant and Urea Plant.
- Establishment of in-house capability in Process Simulation and FEED Verification of on-shore / off-shore Gas Processing Plants and design optimization of associated equipment.

- In-house expertise for complete Refractory solutions (e.g. material selection, engineering, commissioning and troubleshooting) in high-temperature equipment for process plants.
- Development of in-house capability in multi-phase flow simulation studies for Oil & Gas Projects.
- Equipment design capability for waste heat recovery from intermittent sources.
- Design of equipment used in low temperature thermal desalination and Process optimization.
- Capability for dynamic simulation of equipment and processes.
- Successful testing / commissioning of plants and equipment in various Hydrocarbon projects, through multi-disciplinary technology support.
- Complete support to business units for all Materials related assignments (such as material verification / selection / evaluation / characterization; selection of alternative materials; failure analysis; preservation and corrosion protection of critical equipment; development of new materials for strategic applications, identification of newer technologies and commercially available proven products and their implementation).
- Development of in-house expertise related to manufacturing processes, welding, heat treatment, failure mechanisms and corrosion protection / preservation issues of equipment having special metallurgy for critical Oil & Gas applications; Acquisition of know-how pertaining to special materials and their applications.
- Establishment of in-house capabilities in analysis of piping system for flow-induced and acoustic-induced vibrations; Conduct of Plant Noise studies utilizing in-house expertise; Development of in-house capabilities in special acoustic studies such as piping insulation design and valve noise / vent noise assessment.
- Development of in-house expertise in advanced FEA and fatigue analysis techniques for specialized systems (Process piping and piping supports subjected to vibration induced fatigue; Process equipment on offshore floating platforms subjected to motion induced fatigue).
- Development of in-house expertise in Fitness for Service (FFS) Level 1, Level 2 and Level 3 assessment of in-service equipment and structures.
- Establishment of in-house capability in dynamic stress analysis of complex systems involving equipment, piping and structures.
- Development of in-house expertise in specialized applications such as buckling analysis of sub-sea pipeline and onshore buried pipeline.
- Technical support to Oil & Gas, Refinery, Fertilizer and Chemical Plant Projects for complete water & wastewater management solutions; Management of Produced Water, Injection Water and Utility Water; Design of Sludge and Effluent Treatment systems; Appropriate solutions for water treatment, filtration and desalination applications; Development of water recycling, reuse and zero-discharge schemes.

3. Future Plan of Action:

The R&D Centre is committed to providing appropriate technology support to all Hydrocarbon Projects, as required by various business units. Future development activities are identified based on the expected needs of upcoming Projects as well as requirements for in-house capability development. The following key areas have been identified under R&D Action Plan:

- Process technology for coal gasification (technology evaluation, coal characterization, performance simulation, design optimization and system integration for EPC Projects).
- In-house design / simulation capability of Ammonia and Urea Processes.
- Rate-based model development and simulation for Pre-Reformer, HTER and Auto-thermal Reformer.
- Capability development in multi-phase flow assurance studies.
- Use of Refinery Residue for Gasification application.
- Modeling and Process Simulation of Fluidized Bed Gasification Reactors for high-ash Indian coals.
- Process design capabilities in Petrochemical / Polymer Plants.
- Modularization of Process Plants.
- Carbon Capture and Sequestration (CCS) techniques for Oil & Gas Projects.
- Application of Enhanced Oil Recovery (EOR) processes through chemical flooding techniques.
- Cryogenic Air Separation Processes (technology evaluation, process simulation, heat integration and system engineering).
- Use of CFD techniques for design optimization of coal gasifiers.
- Emerging (Non-traditional) energy solutions such as CBM, Shale Gas and Tar Sands.
- Thermal design and optimization of LNG vaporizers.

- Design of Cryogenic Vaporizers and Cold Boxes for Air Separation plants.
- Application of Low Temperature Thermal Desalination process for commercial use.
- Design / engineering of molten salt based thermal energy storage system for electric arc furnace with intermittent operation.
- Use of Oxyfuel combustion to enhance capacity of existing Power Plant Boilers.
- Design of Combustion Air Pre-heaters for Reformers in Ammonia Plants.
- Design analysis of Bulk Flow coolers in Urea Plants.
- Power generation solutions for offshore process platforms using wind power.
- Development of in-house design / analysis capability involving Recycle, Reuse and Zero-discharge Technologies.
- Solar energy based desalination plants for “Clean Energy” initiative.
- RO reject water management & salt reclamation using Nano-filtration (NF) and other Membrane / Electrolytic based systems.
- Advanced Finite Element Analysis (FEA) techniques for process equipment subjected to thermal shock.
- Study of design philosophy of offshore wind turbines.
- Study of advanced techniques for residual stress measurement.
- Stress analysis of refractory lined equipment and reinforced concrete structures.
- Techniques for Reliability, Availability & Maintainability (RAM) studies as part of specialized engineering support for Process Plants.
- Fitness for Service (Level-3) assessment using FEA.
- Advanced FEA based buckling analysis of sub-sea pipelines.
- Theoretical and experimental study on degradation mechanisms in material of construction for Ammonia Converter.
- Chemical synthesis of Platinum nano-particles for development of electrodes for Electrochemical applications, with appropriate characterization tools.
- Study on degradation / failure mechanisms for High-Strength Steel and Duplex Stainless Steels; Characterization of different heat treated (Normalized + Tempered and Normalized + Accelerated cooling + Tempered) low-alloy steel for hydrogen service; Evaluation of hydrogen charged DSS.
- Development of environmentally-friendly (non-toxic and bio-degradable) chemical formulations for chemical cleaning and pickling of steels; Characterization and optimization of selected chemicals based on surface cleaning efficiency and material weight loss.

4. Expenditure on R&D:

Particulars	2013-2014 (₹ Crore)
Capital	0.14
Recurring	11.48
Total	11.62
Total R&D expenditure as percentage to total turnover	0.13%

TECHNOLOGY ABSORPTION, ADAPTATION AND INNOVATION:

1. Efforts made in brief towards technology absorption, adaptation and innovation:

- Interaction with external agencies / technology partners for exposure to the latest products / designs, manufacturing technologies, processes, analytical techniques and engineering protocols.
- Active involvement with International / National Professional Societies (such as IChemE, AIChE / CCPS, IChE, ICC, FRI, ASME, NACE, ASM, ASTM, AISC, ACS, TERI, HTFS, HTRI, STLE, TSI, NAFEMS, etc.).
- Active participation in National / International Innovation forums and Innovation contests.
- Institutionalization of in-house schemes (such as ICONs and KnowNet) for identifying, nurturing and implementing innovative ideas and technology solutions.
- Networking and knowledge sharing through national / international conferences, seminars and exhibitions.
- Valuation, adaptation and/or modification of imported designs / technologies to suit indigenous requirements, alternative materials / components.

- Parametric studies involving theoretical models duly validated by experimental studies at in-house laboratories and pilot plants, as well as feedback and operating data during commissioning of various plants and machinery.
- Review of Patents in relevant technology areas.
- Nomination of R&D engineers to external training programs, expert groups and technical committees.
- Collaborative efforts with educational / research institutions for research projects.
- Use of state-of-the-art equipment, instrument and software as well as the latest Codes and Standards.
- Analyzing feedback from Customers / internal users to continually improve processes and services.

2. Benefits derived as a result of above efforts:

- Successful performance simulation / optimization of process design and engineering for various Hydrocarbon projects (Refinery, Oil & Gas, Fertilizer and Chemical plants).
- Complete in-house support to business units in providing Refractory solutions (selection, design, engineering, commissioning) for high-temperature applications.
- Energy conservation through optimal design, analysis and engineering of heat exchange equipment and waste heat recovery systems for Process Plants.
- Optimum material selection, verification and characterization of materials for critical applications; Implementation of suitable preservation / corrosion protection techniques to achieve successful longer life and adequate performance.
- Development of optimized design for Coal Pulverizers through appropriate sizing, material selection, heat treatment and indigenization of manufacturing and machining processes.
- Establishment of in-house capability for specialized engineering analyses, such as Modeling & Process Simulation, Computational Fluid Dynamics, Transient Thermal Analysis, Risk Based Inspection (RBI) Studies, Fitness for Service (FFS) Studies, advanced Stress Analysis, Vibration & Acoustics, Rotor Dynamics, Tribology etc., in order to achieve self-sufficiency and minimize dependence on external agencies.
- Multi-disciplinary technology support to Projects towards troubleshooting, failure analysis and plant commissioning, in order to achieve successful Project completion with respect to cost, time, quality and HSE targets.
- Acquisition of in-house expertise in areas such as material characterization, advanced corrosion control methods, coating and wear protection techniques to assess and mitigate material-related failures and associated risks in Projects.
- Contribution towards new materials development (composites / nano-materials) and indigenous solutions to control corrosion for effective support to Projects of strategic importance.
- Establishment / upgradation of state-of-the art laboratory facilities for materials characterization, chemical analysis, corrosion control, coating evaluation, vibration and acoustics studies, experimental stress analysis etc., in order to provide comprehensive technology support to business units. This has reduced the dependence on external agencies and enabled effective execution of projects.

3. Information regarding technology imported during the last 5 years:

No technology was imported during the last 5 years.

C. FOREIGN EXCHANGE EARNINGS AND OUTGO

Activities relating to exports, initiatives taken to increase exports; development of new export markets for products and services; and export plans:

The Company has executed large size complex projects internationally, mainly in GCC region. As a part of Strategic Plan, "Internationalization" has been identified as a major theme to drive business growth going forward.

The Company has been taking various initiatives to provide fillip to its international operations viz Investments in strategic construction equipment & fabrication yards, appointment of Expats for business building activities in key customer markets such as GCC, South East Asia and CIS Countries and transferring experienced, top performer employees from domestic operations to international.

During the year, the Company has been pre qualified with major international EPC projects from reputed customers in Saudi Arabia, South East Asia and CIS countries. The Company has bagged a few major international orders for Gas Compression Facilities on turnkey basis and construction of Aviation Fuel Terminal.

Total foreign exchange used and earned:

Particulars	2013-2014 (₹ Crore)
Foreign Exchange earned	6,431.10
Foreign Exchange used	5,921.33

MANAGEMENT DISCUSSION & ANALYSIS

GLOBAL ECONOMIC CONDITIONS:

The world economy has experienced subdued growth for another year in FY 2013-14. The global recovery is still fragile despite improved prospects. Significant downside risks remain. The US Federal Reserve began tapering off the QE program during the year even though the underlying economic growth and payroll data showed mixed signals.

After remaining in deflationary zone for most part of the year, Europe has shown some signs of improvements recently with gross domestic product (GDP) for the region as a whole returning to growth. A few large emerging economies, including China, seem to have backstopped a further slowdown and are poised to strengthen. In Asia, Japan's economy has shown signs of growth boosted by a set of expansionary policy packages, including fiscal stimulus and large-scale purchases of assets by the central bank.

During the year, Crude Oil Brent Futures traded in a narrow range of USD 100 to 115 per barrel. This stability in crude prices is expected to encourage further global investments in E&P and augurs well for the Company's prospects. However, the increasing exploitation of Shale Gas in USA & elsewhere has dampened demand for gas production/processing projects, particularly those relying on deepwater/difficult reserves.

OVERVIEW OF INDIAN ECONOMY:

Indian economy registered a sub 5% growth for the year with significant drop in capital goods sector. Tight monetary policy followed by the RBI to combat persistently high inflation also dampened investment sentiments. India's Public Sector Oil & Gas Companies continued to bear the brunt of under-recoveries which has adversely affected their capex plans for expansion and also indirectly affected viability of exploration from small & marginal fields. The recent political controversy on Natural Gas price revision also does not augur well for attracting private investments in this sector.

Having said that, India's growth is expected to recover from 4.4% in 2013 to 5.4% in 2014, supported by upside in global growth, improving export competitiveness and implementation of recently approved investment projects. A pickup in exports in recent months and measures to curb gold imports have contributed to lowering the current account deficit. Consumer price inflation is expected to remain an important challenge. Policy measures to bolster capital flows have further helped reduce external vulnerabilities. Overall growth is expected to firm up on policies supporting investments, but will remain below long term trend.

SCHEME OF ARRANGEMENT & TRANSFER OF HYDROCARBON BUSINESS:

Earlier, a business vertical of L & T, the Hydrocarbon business is now housed in a wholly owned subsidiary. The Hydrocarbon undertaking ("HC undertaking") of L&T along with related assets, liabilities, specific identified reserves, employees, Management, etc. were vested and transferred to the Company under a Court approved Scheme of Arrangement ("Scheme") on a going concern basis with effect from 1st April 2013 ("Appointed Date").

The aforementioned Scheme was sanctioned by the Honourable Bombay High Court vide its order dated 20th December 2013 and it came into effect on 16th January 2014 ("Effective Date").

HC undertaking's all work experience, qualifications, capabilities, legacies & track record, financials, contracts with clients & vendors and licenses & permissions were also transferred. The Scheme will enable the Company to achieve focused leadership & management attention, attracting and retaining domain intense talent and capitalizing on the global growth opportunities for wider reach into international markets.

The Company continues to draw on the parent company's organizational & financial strengths and experience. The Board has also given an in-principle approval for transfer of investments in Subsidiary & Associate Companies in Hydrocarbon sector from L&T to the Company. This transfer process is expected to be completed in FY 2014-15.

BUSINESS OVERVIEW:

The Company provides "design to build" engineering, procurement and construction solutions on turnkey basis in oil & gas, petroleum refining, chemicals & petrochemicals, fertiliser sectors and cross country pipelines. Capabilities include front end design through engineering, procurement, fabrication, project Management, construction and installation up to commissioning services.

The Company has time & again proved its mettle in delivering large, complex projects due to its integrated strengths coupled with an experienced and highly skilled work force. The Company has key capabilities including in-house engineering, R&D centre, world class modular fabrication facilities, an experienced & competent project execution team and a safe work culture. The key aspects of business philosophy are excellence in corporate governance, high quality standards, best in class HSE protocol, IT security practices, timely execution and cost competitiveness.

The Company has major work centres in India at Powai (Mumbai), Vadodara, Chennai, Faridabad, Hazira and Kattupalli and international presence in Middle East and South East Asia. The Company's project execution capabilities in Middle East are located in UAE (Sharjah and Abu Dhabi), Saudi Arabia (Al-Khobar), Kuwait, Oman (Muscat) & Qatar (Doha). In addition, the company has a major Modular Fabrication Facility in Sohar in Oman held through a fellow subsidiary. The Company's presence in South East Asia is spread across offices at Singapore, Malaysia (Kuala Lumpur) and Indonesia (Jakarta).

The Company has operations across the Hydrocarbon Value-Chain in India & Overseas:

- Hydrocarbon Upstream
- Hydrocarbon Mid & Downstream - Domestic

- Hydrocarbon Construction & Pipelines - Domestic
- Hydrocarbon Mid & Downstream including Pipelines - International

Hydrocarbon Upstream:

The Company offers turnkey solutions to the Global Offshore Oil & Gas industry encompassing well-head platforms, process platforms & modules, subsea pipelines, brown field developments, floating systems & offshore drilling rigs. The Company has successfully executed large offshore platforms and pipeline projects in east and west coast of India, Middle East, South East Asia and Africa for global companies such as ONGC, GSPC, ADMA OPCO, Bunduq, Qatar Petroleum, Maersk Oil Qatar, PTTEP, Petronas and Songas.

The Company has also established experience in the Jack-up rig refurbishment and is qualified to build new Jack-up rigs, floating production storage & off-loading (FPSO) topsides and subsea projects. The Company has two state-of-the-art fabrication facilities at strategically important locations for modular structures, heavy jackets and oil rigs offering round-the year delivery. Hazira, near Surat in Gujarat, caters to business opportunities in the West Coast of India (Mumbai High). Kattupalli near Chennai in Tamil Nadu caters to opportunities from East Coast (KG Basin) and South East Asia. L&T Modular Fabrication Yard LLC’s yard at Sohar, Oman caters to opportunities in the MENA region. These yards have a total fabrication capacity of about 150,000 MT per year.



(Topsides sail away from L&T Modular Fabrication Yard in Sohar-Oman for Nasr & Umm Lulu Development project of ADMA-OPCO, Abu Dhabi)

The Company has business development offices at Abu Dhabi, Singapore, and Kuala Lumpur to provide the necessary thrust for its international growth vision. The Company is also exploring upcoming opportunities in the CIS region and East Africa.

The Company’s fellow subsidiaries offer offshore installation capabilities by virtue of owning and operating a Heavy Lift Pipe Lay vessel and also access to engineering centres at Bengaluru, Chennai and Faridabad.



(Topside for Yetagun North Project for PETRONAS Carigali on the barge for sail off from Modular Fabrication Facility at Kattupalli, near Chennai)

The Company received an order from BG Exploration and Production India Limited for Engineering, Procurement, Construction & Installation of a wellhead platform and 30 Km subsea pipeline spread over the Panna-Mukta fields in India. The Company in consortium with a partner, also bagged a turnkey order for conversion of a Mobile Offshore Drilling Unit (MODU) to a Mobile Offshore Production Unit (MOPU) from ONGC.

Hydrocarbon Mid & Downstream –Domestic :

The Company provides a wide range of EPC solutions for hydrocarbon refining, petrochemical and fertilizer (ammonia & urea complexes) sectors.

The Company has track record of successfully executing multiple large value projects on a turnkey basis with in-house Engineering Resource Centers located at Mumbai, Faridabad and Vadodara, catering to the complete spectrum of feed, process and detailed engineering. The Company also draws engineering support from L&T-Chiyoda Limited.

The Company has rich experience of project execution with technologies from process licensors like UOP, Axens, HaldorTopsoe, CB&I Lummus, Black & Veatch, Orloff, ExxonMobil, BOC Parsons, Du-Pont (Invista) & Davy Process Technologies. The Company has executed on-shore gas processing, refinery & petrochemical projects for PSU companies like Indian Oil Corporation, Mangalore Refineries & Petrochemicals, Oil & Natural Gas Corporation, Hindustan Petroleum Corporation, Bharat Petroleum Corporation, etc. as well as fertiliser companies like National Fertilisers, Gujarat Narmada Valley Fertilisers, and others.



(Ammonia SynGas Generation Plant (Capacity: 123,700 Nm³/h) for GNFC – Bharuch, Gujarat on License + EPC Basis)

Orders received during the year include supply of Cracking Furnace Modules and EPC execution of Cryogenic Ethylene Package for a large petrochemical complex in India.

Hydrocarbon Construction & Pipelines – Domestic:

The Company undertakes EPC projects of cross-country pipelines for Oil & Gas and renders turnkey construction services for refineries, petrochemicals, chemical plants, fertilizers, gas gathering stations, crude oil & gas terminals and underground cavern storage systems for LPG.

Major capabilities include heavy lift competency, advanced welding technologies, world class HSE and Quality systems. The Company has strategically invested in key construction equipment such as Earth Moving Equipment, Auto Rebar Plants and Batching Plants for Civil works, Heavy Lift, all Terrain Cranes of various capacities, Pipe Layers and entire range of Pipeline spread equipment, automatic welding machines and other plant & machinery for Electromechanical construction Works.

The Company's fellow subsidiary (JV with Gulf Interstate Engineering of USA) provides world class engineering capabilities for cross-country pipeline construction.

The Company has executed projects for major private sector customers like Cairn Energy, Reliance Industries, HPCL Mittal Energy as well as all major oil PSUs.

During the year, a major order was received for the Composite Construction Works, including Civil, Mechanical, Electrical & Instrumentation works for the largest Refinery & Petrochemical complex in India.



(Continuous Polymerization & Solid State Polymerization Buildings for PET 3 Project for Reliance Industries Limited - Dahej)

Hydrocarbon Mid & Downstream International:

The Company's network of international offices and facilities across Middle East countries, select South East Asian and CIS countries are geared to respond to the needs of its client-base in multiple geographies. The Company's business operations in Middle-East are spread across United Arab Emirates, Sultanate of Oman, Qatar, Kingdom of Saudi Arabia, Kuwait, Iraq & Bahrain. In South East Asia, the Company is targeting prospects in Indonesia & Malaysia. The international headquarters are located in Sharjah supported by regional hubs in Al-Khobar and Kuala Lumpur.

Cross-cultural teams possessing local knowledge and domain expertise are being built up. Quite a few senior business development executives of different nationalities and having rich domain experience with customer insight have been inducted in these countries.

The Company is prequalified by major international Oil & Gas producers such as Saudi Aramco, Kuwait Oil Company (KOC) & Kuwait National Petroleum Company (KNPC), SOCAR & BOTAS (TANAP, Turkey), PETRONAS, CNPC and Dragon Oil in Turkmenistan, Lukoil in Uzbekistan and Sonatrach in Algeria. Pre-qualification with TOTAL and TULLOW in Uganda and SOCAR in Azerbaijan are under progress.

In Oman, the company received a major order for Engineering, Procurement & Construction of 3rd stage Depletion Compression Project at Yibal-Natih Gas reservoir.

In United Arab Emirates, the Company bagged an order for Engineering, Procurement & Construction of a new Aviation Fuel Terminal at Abu Dhabi International Airport for storage and delivery of Jet A-1 fuel.

In Qatar, the Company bagged an EPC order for Third Party Gas Interconnecting facilities at Ras Laffan from Dolphin Energy Limited.



(Lekhwaier Gas Field Development Project for Petroleum Development Oman LLC (Capacity: 3 MMSCMD))

In Kingdom of Saudi Arabia, Larsen Toubro Arabia, a locally incorporated In-Kingdom EPC Company received its maiden order from Saudi Aramco for setting up Gas processing facilities for Midyan Gas Fields.

BUSINESS ENVIRONMENT:

FY 13-14 was a difficult year for the Company. There were cost over-runs in some of the international projects bagged during 2010 to 2012. Most of these projects were first of its kind with respect to customers, size & scale, technical complexity, and were situated in remote geographic locations. The problems were compounded during the year due to inclement weather conditions, unforeseen delays in project close-outs, extended stay of resources, stringent localisation norms and restrictions on visa availability, difficult contractual terms and financial difficulties of customer.

FY 14-15 is expected to be a year of transition and one focused on closing out the legacy projects and bidding on new opportunities incorporating therein learnings from past challenges. The Management is recruiting new talent and restructuring the organization to ensure that the necessary resources and the optimal structure are in place to achieve long-term success. The Company is taking steps to improve cost structure, building stronger customer relationships and creating a culture of operational excellence and greater accountability.

SIGNIFICANT INITIATIVES AND THRUST AREAS:

During the year, the Company has been prequalified for several upcoming projects in Kingdom of Saudi Arabia, United Arab Emirates, Kuwait, Oman, Turkey, Turkmenistan and Algeria. The Company has entered into strategic alliances with major EPC bidders for some of the targeted projects.

Operational excellence measures such as productivity monitoring, integrated project execution, knowledge management across projects and effective contract management are being undertaken for projects under execution.

The Company has established a branch in Singapore and is in the process of establishing branches in Ashgabat, Turkmenistan and in Abu Dhabi, UAE.

FINANCIAL OVERVIEW:

During the year, the Company secured new orders of around ₹ 8,000 Cr, of which around ₹ 3,000 Cr were international orders.

Net Revenue from Operations for the year was around ₹ 8,700 Cr of which around 54% was contributed by international operations. Manufacturing, Construction & Operating Expenses at ₹ 7,348 Cr amounted to 84.3% of revenue. Staff Costs of ₹ 655 Cr amounted to 7.5% of sales reflecting higher impact of overseas site wages.

The Net Profit before and after tax was ₹ 164 Cr and ₹ 106 Cr respectively. The Earnings per Share (EPS) for the year was ₹ 0.97 per share. The previous year numbers are not comparable as there were no business operations in the previous year in the entity in which Hydrocarbon business was transferred.

The Company's Capital Employed as on 31 March 2014 was ₹ 2,528 Cr. Net Working Capital (including Cash & Bank) as at 31 March 2014 was ₹ 1,379 Cr representing 15.8% of Gross Sales. The trade receivables as at year end stood at ₹ 2,175 Cr of which ₹ 839 Cr is not yet contractually due. The balance receivables represent 56 days of sales.

The Company Net Debt as on 31 March 2014 stood at ₹ 860 Cr which translates into a net debt to equity ratio of 0.58:1. The Company's Return on Networth for the year was 7%. Cash used in operating activities during the year was ₹ 121 Cr due to build up in working capital. Cash outflow on capex during the year was ₹ 147 Cr.

Close out of low margin legacy projects and liquidation of outstanding are expected to improve the cash flow and return ratios of the company in FY 14-15.

RISK MANAGEMENT & INTERNAL CONTROLS:

The Company has institutionalised risk management processes with clear policies and guidelines incorporating global best practices and procedures along with usage of industry wide quantitative tools and techniques to enhance/protect operating margins. The Risk Management process is aimed at identification, assessment, mitigation, monitoring risks and capturing lessons learnt from pre-bid to execution stage till project close out.

The challenges in the form of growing competition, newer geographies, forex variation, claims management and staffing of key manpower are mitigated through specific actions like operational excellence initiatives, alliancing, cost optimisation, increased customer intimacy, compliance with stringent HSE standards, proactive hedge management, strong contract management and talent acquisition and retention.

All projects undergo a well-structured pre-bid risk review process by risk management committee at business and at corporate levels with well-defined authorisation levels. The process involves a detailed assessment of risks and deliberation on mitigation measures by the risk management committee followed by on-going projects risk reviews at regular intervals. Project Managers/ Project team members also undergo certified Risk Induction Programme conducted by ECRI (Engineering & Construction Risk Institute) on a continuous basis to get acquainted with Global Best Practices in Engineering & Construction Risk Management.

The Company believes that a strong internal control mechanism is an important pillar of Corporate Governance. It has established internal control mechanism commensurate with the size and complexity of its business. L&T's Group policy on internal control provides structured framework for identification, rectification, monitoring and reporting of internal control weaknesses in the Company. The Company also follows well documented Standard Operating Procedures (SOPs) for critical business processes.

HUMAN RESOURCE DEVELOPMENT:

The Company has a strong resource base of skilled and experienced people working in various disciplines. HR efforts are targeted to ensure that the right talent is sourced, selected, trained and deployed across the organisation. Special efforts are being put to

identify high potential leaders and groom them through six stages of leadership development to take on higher responsibilities in the future. The Company participates in L&T's Corporate training programmes like Leadership programme (SDP, EDP, LDP etc), EMBA programmes and special E learning programmes (DDI, Harvard and other certification programme) on a regular basis. The Company continues to foster a high performance culture by recognising good performers and providing them with career enhancing opportunities.

As a part of its drive towards building international project management capabilities, several senior professionals have been recruited from leading international EPC companies.

HEALTH SAFETY ENVIRONMENT (HSE) & SUSTAINABILITY:

Health, Safety & Environment is the cornerstone of our business philosophy and the Company strives for continuous improvement for the protection and development of health, safety, and environmental assets of its employees and stakeholders. During the year, sustained thrust on continual improvement in HSE systems & processes across locations and business units through the dedicated organizational support led by committed leadership, the business continued to emphasize on the Zero Incident Credo. Two crucial projects were commissioned safely without any reportable incident during the year. This year we focused on Implementation of behaviour based safety through Senior Management Audits and a system of Safety Observations & Safety Field Audit implementation at all domestic and international facilities. Human resources being a critical factor, various competency building programs such as NEBOSH, HSE in Design and Lead Auditor course (for ISO 14000 & OHSAS 18000), Train The Trainers were conducted for line managers and safety personnel. The one of its kind in India, Safety Innovation School at Hazira became operational with 24 sessions conducted which trained as many as 785 employees and contractors. An integrated centralized online system for recording Safety performance and real time reporting of incidents was developed in house for disseminating & sharing of the safety information & initiatives. Various internal & external audits were conducted during the year to monitor the implementation of various safety systems at the project sites along with a close follow up for closure of the recommendations. Campaigns on various on-job and off-job safety issues such as Road Safety, Stress Management, and Sustainability were conducted during the year. "Suraksha Jeet" an initiative launched in the previous years, continued its sustained thrust on sharing the best practices across the construction business units which has achieved the desired effect of improved safety performance.

As a responsible Corporate Citizen, the Company has been constantly delivering on stakeholder's expectations in an equitable and inclusive way through improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities. During the year, we have taken up various initiatives based on local requirements such as Mother and Child Health, Education & Skill Building at various international and domestic project locations. Environment protection remains a priority for the business and various initiatives adopted at office campuses and project sites have led to significant conservation of precious resources such as energy and water.

During the year, a number of international safety certifications were achieved, which are vital in view of the growing international operations. The business won several national & international recognitions, accolades and appreciations from clients, which includes some of the prestigious awards namely Golden Peacock Award for Occupational Health & Safety, Platinum Award won by MFF Hazira & Certificate of Appreciation by MFF Kattupalli received during FICCI Safety Excellence Awards for Manufacturing, The British Safety Council International Safety Merit award was received by MFF Hazira, MFF Kattupalli, MFF Sohar & Dolphin Export Gas Processing Project Site and RoSPA Gold Award by MFF Sohar & Hydrocarbon Mid & Downstream International.

OUTLOOK:

After a lull in ONGC orders in FY 13-14, new project awards by ONGC are expected to pick up in FY 14-15, both in the offshore platform projects as well as onshore gas processing projects. The Company is also adapting to changing competitive landscape by building higher competencies in Offshore Pipeline Projects and Brownfield Projects. As part of de-risking strategy, the Company is looking beyond traditional PSU clients and actively developing relationships with private sector customers. To provide long term stable growth, the Company is also exploring the possibility of entering into "Long Term Frame Agreements" with International Oil Companies for their yearly capex requirements. To diversify its business profile, the Company is also looking at building new Jack-up Rigs for drilling companies.

In the Mid & Downstream sector, the Company is witnessing a number of exciting opportunities in Middle East. United Arab Emirates has planned several field development projects to achieve a production of 3.5 million bpd crude oil by 2017 from current 2.8 million bpd. Opportunities in Oman exist mainly in redevelopment of existing fields undertaken by National Oil Companies to boost recovery rates. Saudi Arabia is developing gas facilities to replace the domestic consumption of crude oil with gas and hence free up the crude for export. However, the country has recently brought greater regulation for localization which is eventually increasing the cost and complexity of doing business. The Company is also participating in multiple bids for supply of Modular Process Plants in Consortium with leading international EPC Companies.

Consequent to a stable government regime in India, the Company is optimistic that the capex cycle will receive the much needed boost including fast-tracking the Fertiliser Expansion Projects, ONGC offshore & gas processing projects and Cross-country pipeline projects. Accordingly, the Company expects improved order inflows in FY 14-15.

INDEPENDENT AUDITORS' REPORT

TO THE MEMBERS OF L&T HYDROCARBON ENGINEERING LIMITED

(formerly L&T Technologies Limited)

Report on the financial statements

We have audited the accompanying financial statements of **L&T HYDROCARBON ENGINEERING LIMITED (formerly L&T Technologies Limited)** ("the Company"), which comprise the Balance Sheet as at March 31, 2014, the Statement of Profit and Loss and the Cash Flow Statement for the year then ended, and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation of these financial statements that give a true and fair view of the financial position, financial performance and cash flows of the Company in accordance with the Accounting Standards notified under the Companies Act, 1956 ("the Act") read with the General Circular 15/2013 dated September 13, 2013 of the Ministry of Corporate Affairs in respect of Section 133 of the Companies Act, 2013. This responsibility includes the design, implementation and maintenance of internal control relevant to the preparation and presentation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with the Standards on Auditing issued by the Institute of Chartered Accountants of India. Those Standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Company's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of the accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion and to the best of our information and according to the explanations given to us, the financial statements give the information required by the Act in the manner so required and give a true and fair view in conformity with the accounting principles generally accepted in India:

- (a) in the case of the Balance Sheet, of the state of affairs of the Company as at March 31, 2014;
- (b) in the case of the Statement of Profit and Loss, of the profit for the year ended on that date; and
- (c) in the case of the Cash Flow Statement, of the cash flows for the year ended on that date.

Emphasis of matter

We draw attention to note Q(2) to the financial statements which explains the acquisition of the Hydrocarbon business of Larsen & Toubro Limited under a court sanctioned scheme of arrangement. Our opinion is not qualified in respect of this matter.

Report on other legal and regulatory requirements

1. As required by the Companies (Auditor's Report) Order, 2003 ("the Order") issued by the central government of India in terms of sub-section (4A) of Section 227 of the Act, we give in the Annexure a statement on the matters specified in paragraphs 4 and 5 of the Order.
2. As required by Section 227(3) of the Act, we report that:
 - a. we have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;
 - b. in our opinion proper books of account as required by law have been kept by the Company so far as appears from our examination of those books;
 - c. the Balance Sheet, Statement of Profit and Loss and Cash Flow Statement dealt with by this Report are in agreement with the books of account;

- d. in our opinion, the Balance Sheet, Statement of Profit and Loss and Cash Flow Statement comply with the Accounting Standards notified under the Act read with the General Circular 15/2013 dated September 13, 2013, of the Ministry of Corporate Affairs in respect of Section 133 of the Companies Act, 2013; and
- e. on the basis of written representations received from the directors as on March 31, 2014, and taken on record by the Board of Directors, none of the directors is disqualified as on March 31, 2014 from being appointed as a director in terms of clause (g) of sub-section (1) of Section 274 of the Companies Act, 1956.

SHARP & TANNAN
Chartered Accountants
Firm's registration number 109982W

Place : Mumbai
Date : April 29, 2014

FIRDOSH D. BUCHIA
Partner
Membership No. 38332

ANNEXURE TO THE AUDITORS' REPORT

(Referred to paragraph (1) of our report of even date)

- 1 (a) The Company is maintaining proper records to show full particulars including quantitative details and situation of all fixed assets.
- (b) We are informed that the Company has formulated a programme of physical verification of all the fixed assets over a period of three years which, in our opinion, is reasonable having regard to the size of the Company and nature of its assets. Accordingly, the physical verification of the fixed assets has been carried out by management during the year and no material discrepancies were noticed on such verification.
- (c) The Company has not disposed of any substantial part of its fixed assets so as to affect its going concern status.
- 2 (a) As explained to us, inventories have been physically verified by management at reasonable intervals during the year. In our opinion, the frequency of such verification is reasonable.
- (b) As per the information given to us, the procedures of physical verification of inventory followed by management are, in our opinion, reasonable and adequate in relation to the size of the Company and the nature of its business.
- (c) The Company is maintaining proper records of inventory. The discrepancies noticed on verification between the physical stocks and the book records were not material.
- 3 (a) According to the information and explanations given to us, the Company has not granted any loans, secured or unsecured, to companies, firms and other parties covered in the register maintained under Section 301 of the Companies Act, 1956. Accordingly, paragraphs 4(iii)(b), (c) and (d) of the Order are not applicable.
- (b) According to the information and explanations given to us, the Company has not taken any loans, secured or unsecured from companies, firms and other parties covered in the register maintained under Section 301 of the Companies Act, 1956. Accordingly, paragraphs 4(iii)(f) and (g) of the Order are not applicable.
- 4 In our opinion and according to the information and explanations given to us, there are adequate internal control systems commensurate with the size of the Company and the nature of its business for the purchase of inventory, fixed assets and for the sale of goods and services. Further, on the basis of our examination of the books and records of the Company, and according to the information and explanations given to us, we have neither come across nor have been informed of any continuing failure to correct major weaknesses in the aforesaid internal control systems.
- 5 According to the information and explanations given to us, we are of the opinion that there are no contracts or arrangements that need to be entered in the register maintained under Section 301 of the Companies Act, 1956; accordingly paragraph 4(v) (a) and(b) of the Order is not applicable.
- 6 The Company has not accepted deposits from the public and accordingly, paragraph 4(vi) of the Order is not applicable to the Company.
- 7 In our opinion, the Company has an internal audit system commensurate with its size and the nature of its business.
- 8 We have broadly reviewed the books of account and records maintained by the Company pursuant to the rules prescribed by the central government for the maintenance of cost records under Section 209(1)(d) of the Companies Act, 1956 in respect of EPC projects undertaken by the Company and are of the opinion that prima facie the prescribed accounts and records have been made and maintained. The contents of these accounts and records have not been examined by us.
- 9 (a) According to the information and explanations given to us and the records of the Company examined by us, in our opinion, the Company is generally regular in depositing undisputed statutory dues including provident fund, investor education and protection fund, employees state insurance, income tax, sales tax, wealth tax, service tax, custom duty, excise duty, cess and other material statutory dues as applicable with the appropriate authorities. According to the information and explanations given to us, there were no undisputed amounts payable in respect of provident fund, investor education and protection fund, employees state insurance, income tax, sales tax, wealth tax, service tax, custom duty, excise duty, cess and other statutory dues outstanding as at March 31, 2014 for a period of more than six months from the date they became payable.
- (b) According to the information and explanations given to us and the records of the Company examined by us, the particulars of sales tax, excise duty, service tax, customs duty and income tax as at March 31, 2014 which have not been deposited on account of a dispute pending are as under:

Name of the Statute	Nature of the disputed dues.	Amount (₹ in Crore)	Period to which the amount relates	Forum where dispute is Pending
Central sales Tax Act, Local Sales Tax Act, Works Contract Tax Act.	Disallowance of deemed interstate sales and non-submission of forms	0.08	1999-00, 2002-03	Assistant Commissioner (Appeals)
	Disallowance of sales in transit, deemed interstate sales, non-submission of forms and other matters	44.48	1989-90, 1997-98, 1998-99, 2001-02, 2003-04 to 2010-11	Deputy Commissioner (Appeals)

Name of the Statute	Nature of the disputed dues.	Amount (₹ in Crore)	Period to which the amount relates	Forum where dispute is Pending
	Classification disputes, disallowance of forms and other matters	94.64	1996-97, 2000-01, 2001-02, 2003-04 to 2005-06, 2010-11	Joint Commissioner (Appeals)
	Non submission of forms	3.58	2005-06, 2010-11, 2011-12	Additional Commissioner (Appeals)
	Disallowance of deemed sales in course of imports, classification disputes, non-submission of forms	2.55	1987-88 to 1991-92, 1999-00, 2000-01, 2002-03	Sales Tax Tribunal
	Disallowance of deemed sales in course of imports, taxability of sub-contractor's turnover and other matters	78.39	1999-00, 2000-01	High Court
	Classification disputes, disallowance of input tax credit and other matters	106.74	2006-07 to 2008-09	Supreme Court
The Central Excise Act, 1944, Service Tax under Finance Act, 1994	Demand for excise duty on fabrication of tanks, platforms and ladders	0.39	1989-90 to 2011-12	Additional Commissioner (Central Excise)
	Demand for service tax on manpower recruitment and supply agency service and dispute on adjustment of excess service tax paid	6.46	2005-06 to 2010-11	Commissioner of Service Tax
	Demand for service tax including penalty and interest on lump sum turnkey jobs	72.12	2002-03 to 2006-07	CESTAT
Income Tax Act, 1961	Dispute regarding tax not deducted on bank guarantee charges and internet charges	1.92	2009-10	Assistant Commissioner (TDS)
	Dispute regarding tax not deducted on bank guarantee charges and internet charges	1.40	2010-11, 2011-12	Commissioner (TDS)
	Difference in rate of tax deducted at source	2.40	2007-08, 2008-09	Director of Income Tax (International Taxation)
Customs Act, 1962	Dispute on software procurement	0.01	2006-07	Commissioner of Customs

- 10 The Company has no accumulated losses as at March 31, 2014 and it has not incurred cash losses in the financial year ended on that date or in the immediately preceding financial year.
- 11 According to the records of the Company examined by us and the information and explanations given to us, the Company has not defaulted in repayment of dues to any financial institution or bank or debenture holders as at the Balance Sheet date.
- 12 According to the information and explanations given to us, the Company has not granted loans and advances on the basis of security by way of pledge of shares, debentures and other securities.
- 13 The provisions of any special statute applicable to chit fund/nidhi/mutual benefit fund/societies are not applicable to the Company.
- 14 In our opinion and according to the information and explanations given to us, the Company is not a dealer or trader in securities.
- 15 In our opinion and according to the information and explanations given to us, the Company has not given any guarantees for loans taken by others from banks or financial institutions.
- 16 In our opinion and according to the information and explanations given to us, the Company has not accepted term loans from banks or financial institutions.
- 17 According to the information and explanations given to us and on an overall examination of the Balance Sheet of the Company, we report that no funds raised on short term basis have been used for long term investments.
- 18 The Company has not made any preferential allotment of shares to parties and companies covered in the register maintained under Section 301 of the Companies Act, 1956 during the year.

- 19 According to the information and explanations given to us, the Company has not issued debentures during the year.
- 20 The Company has not raised any money by public issues during the year.
- 21 During the course of our examination of the books and records of the Company, carried out in accordance with the generally accepted auditing practices in India, and according to the information and explanations given to us, we have neither come across any instances of material fraud on or by the Company, noticed or reported during the year, nor have we been informed of such case by management.

SHARP & TANNAN
Chartered Accountants
Firm's registration number 109982W

Place : Mumbai
Date : April 29, 2014

FIRDOSH D. BUCHIA
Partner
Membership No. 38332

BALANCE SHEET AS AT MARCH 31, 2014

	Note No.	As at 31.03.2014		As at 31.03.2013	
		(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
EQUITY AND LIABILITIES:					
Shareholders' Funds					
Share capital	B	1,500.05		0.05	
Reserves and surplus	C	(19.41)		(0.01)	
			1,480.64		0.04
Non-current liabilities					
Long-term borrowings	D(I)	260.00		–	
Other long term liabilities	D(II)	35.93		–	
Long-term provisions	D(III)	10.93		–	
			306.86		–
Current liabilities					
Short-term borrowings	E(I)	786.81		–	
Trade payables	E(II)	2,708.89		0.01	
Other current liabilities	E(III)	906.99		–	
Short-term provisions	E(IV)	83.71		–	
			4,486.40		0.01
TOTAL			6,273.90		0.05
ASSETS:					
Non-current assets					
Fixed assets					
Tangible assets	F(I)	917.60		–	
Intangible assets	F(II)	1.98		–	
Capital-work-in-progress	F(I)	25.13		–	
			944.71		–
Deferred tax assets	Q(10)		16.97		–
Long-term loans and advances	G		108.10		–
Current assets					
Inventories	H(I)	21.03		–	
Trade receivables	H(II)	2,174.66		–	
Cash and bank balances	H(III)	187.11		0.05	
Short term loans and advances	H(IV)	726.91		–	
Other current assets	H(V)	2,094.41		–	
			5,204.12		0.05
TOTAL			6,273.90		0.05
CONTINGENT LIABILITIES					
COMMITMENTS (Capital and others)					
OTHER NOTES FORMING PART OF THE ACCOUNTS					
SIGNIFICANT ACCOUNTING POLICIES					

As per our report attached

For and on behalf of the Board

SHARP & TANNAN

Chartered Accountants

Firm's Registration No.109982W

by the hand of

FIRDOSH D. BUCHIA

Partner

Membership No.38332

K. VENKATARAMANAN

Managing Director

P. S. KAPOOR

Company Secretary & Chief
Financial Officer

U. DASGUPTA

Director

K. RAVINDRANATH

Director

Place : Mumbai

Date : April 29, 2014

Place : Mumbai

Date : April 29, 2014

STATEMENT OF PROFIT AND LOSS FOR THE YEAR ENDED MARCH 31, 2014

	Note No.	2013-14		2012-13	
		(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
REVENUE:					
Revenue from operations (gross)	K	8,737.03		–	
Less: Excise duty		21.13		–	
Revenue from operations (net)			8,715.90		–
Other income	L		0.89		–
TOTAL REVENUE			8,716.79		–
EXPENSES:					
Manufacturing, construction and operating expenses:					
Cost of raw material, components consumed	M	2,731.82		–	
Construction materials consumed		329.23		–	
Stores,spares and tools consumed		120.94		–	
Sub-contracting charges		3,210.61		–	
Changes in inventories of work-in-progress and stock-in-trade		26.75		–	
Other manufacturing, construction and operating expenses		928.38		–	
			7,347.73		–
Employee benefits expense	N		654.84		–
Sales, administration and other expenses [previous year ₹ 11,792]	O		408.38		0.00
Finance costs	P		41.96		–
Depreciation and amortisation and obsolescence			100.05		–
TOTAL EXPENSES			8,552.96		0.00
Profit / (loss) before tax			163.83		(0.00)
Tax expenses:					
Current tax		44.00		–	
Deferred tax		14.10		–	
			58.10		–
Profit / (loss) after tax [previous year loss of ₹ 11,792]			105.73		(0.00)
Profit / (loss) for the period carried to Balance Sheet			105.73		(0.00)
Basic earnings per equity share (₹)	Q(9)		0.97		(2.36)
Diluted earnings per equity share (₹)	Q(9)		0.97		(2.36)
Face value per equity share (₹)			10		10
OTHER NOTES FORMING PART OF ACCOUNTS	Q				
SIGNIFICANT ACCOUNTING POLICIES	A				

As per our report attached

For and on behalf of the Board

SHARP & TANNAN

Chartered Accountants

Firm's Registration No.109982W

by the hand of

FIRDOSH D. BUCHIA

Partner

Membership No.38332

K. VENKATARAMANAN

Managing Director

P. S. KAPOOR

Company Secretary & Chief
Financial Officer

U. DASGUPTA

Director

K. RAVINDRANATH

Director

Place : Mumbai

Date : April 29, 2014

Place : Mumbai

Date : April 29, 2014

CASH FLOW STATEMENT FOR THE YEAR ENDED MARCH 31, 2014

	2013-2014 (₹ Crore)	2012-2013 (₹ Crore)
A. Cash flow from operating activities:		
Profit / (loss) before tax	163.83	(0.00)
Adjustments for:		
Depreciation (including obsolescence), amortisation and impairment	100.05	–
Interest expense	41.96	–
Interest income	(0.10)	–
Profit on sale of fixed assets (net)	(0.39)	–
Operating profit before working capital changes	305.35	(0.00)
Adjustments for:		
(Increase)/decrease in trade and other receivables	509.02	786
(Increase)/decrease in inventories	(15.27)	786
Increase/(decrease) in trade payables and customer advances	(868.09)	0.00
Cash (used in)/generated from operations	(69.00)	–
Direct taxes refund/(paid) - net	(52.17)	–
Net cash (used in)/from operating activities	(121.17)	–
B. Cash flow from investing activities:		
Purchase of fixed assets	(147.03)	–
Sale of fixed assets (including advance received)	26.06	–
Consideration towards transfer of Hydrocarbon Undertaking [Note Q(2)]	(1,760.00)	–
Interest received	0.10	–
Net cash (used in)/ from investing activities	(1,880.87)	–
C. Cash flow from financing activities:		
Proceeds from fresh issue of share capital	1,500.00	–
Proceeds from long term borrowings from Holding Company	260.00	–
(Repayments)/Proceeds from other borrowings (net)	90.78	–
Inter-corporate borrowing from Holding Company (net of repayments)	339.70	–
Interest paid	(38.44)	–
Net cash (used in)/ from financing activities	2,152.04	–
Net (decrease) / increase in cash and cash equivalents (A + B + C)	149.99	–
Add: Cash & Cash equivalents of transferred undertaking received as part of Scheme	37.07	–
Cash and cash equivalents at beginning of the period	0.05	0.05
Cash and cash equivalents at end of the period	187.11	0.05

Notes:

- Cash flow statement has been prepared under the indirect method as set out in the Accounting Standard (AS) 3: "Cash Flow Statements" as specified in the Companies (Accounting Standards) Rules, 2006.
- Purchase of fixed assets includes movement of capital work-in-progress during the year
- Cash and cash equivalents at the end of the year represent cash and bank balances and include unrealised gain of ₹ 0.57 crore (*previous year : nil*) on account of translation of foreign currency bank balances.
- Cash and cash equivalents are reflected in the Balance Sheet as follows:
 - Cash and cash equivalents disclosed under current assets [Note H (III)]
- Previous year's figures have been regrouped/reclassified wherever applicable.

187.11 **0.05**

As per our report attached

For and on behalf of the Board

SHARP & TANNAN

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Firm's Registration No.109982W

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FIRDOSH D. BUCHIA

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Financial Officer

U. DASGUPTA

Director

K. RAVINDRANATH

Director

Place : Mumbai
Date : April 29, 2014

Place : Mumbai
Date : April 29, 2014

NOTES FORMING PART OF ACCOUNTS

A. SIGNIFICANT ACCOUNTING POLICIES

1. Basis of accounting

The Company maintains its accounts on accrual basis following the historical cost convention, in accordance with generally accepted accounting principles ["GAAP"] in compliance with the provisions of the Companies Act, 1956 and the Accounting Standards as specified in the Companies (Accounting Standards) Rules, 2006 prescribed by the central government. Further, the guidance notes/announcements issued by the Institute of Chartered Accountants of India (ICAI) are also considered, wherever applicable.

The preparation of financial statements in conformity with GAAP requires that the management of the Company makes estimates and assumptions that affect the reported amounts of income and expenses of the period, the reported balances of assets and liabilities and the disclosures relating to contingent liabilities as of the date of the financial statements. Examples of such estimates include the useful lives of tangible and intangible fixed assets, allowance for doubtful debts/advances, future obligations in respect of retirement benefit plans, etc. Difference, if any, between the actual results and estimates is recognised in the period in which the results are known.

2. Presentation of financial statements

The Balance Sheet and the Statement of Profit and Loss are prepared and presented in the format prescribed in the Schedule VI to the Companies Act, 1956("the Act"). The Cash Flow Statement has been prepared and presented as per the requirements of Accounting Standard (AS) 3 "Cash Flow Statements". The disclosure requirements with respect to items in the Balance Sheet and Statement of Profit and Loss, as prescribed in the Schedule VI to the Act, are presented by way of notes forming part of accounts along with the other notes required to be disclosed under the notified Accounting Standards.

Amounts in the financial statements are presented in Indian Rupees in crore [1 crore = 10 million] rounded off to two decimal places in line with the requirements of Schedule VI. Per share data are presented in Indian Rupees to two decimal places.

3. Revenue recognition

Revenue is recognised based on nature of activity when consideration can be reasonably measured and there exists reasonable certainty of its recovery.

A. Revenue from operations

a. Sales & Service

- i. Sales and service include excise duty and adjustments made towards liquidated damages and price variation, wherever applicable. Escalation and other claims, which are not ascertainable/acknowledged by customers, are not taken into account.
- ii. Revenue from sale of manufactured and traded goods is recognised when the substantial risks and rewards of ownership are transferred to the buyer under the terms of the contract.
- iii. Revenue from construction/project related activity and contracts for supply/commissioning of complex plant and equipment is recognised as follows:
 - a. Cost plus contracts: Contract revenue is determined by adding the aggregate cost plus proportionate margin as agreed with the customer.
 - b. Fixed price contracts: Contract revenue is recognized only to the extent of cost incurred till such time the outcome of the job cannot be ascertained reliably. When the outcome of the contract is ascertained reliably, contract revenue is recognized at cost of work performed on the contract plus proportionate margin, using the percentage of completion method. Percentage of completion is the proportion of cost of work performed to-date, to the total estimated contract costs.

Expected loss, if any, on the construction/project related activity is recognized as an expense in the period in which it is foreseen, irrespective of the stage of completion of the contract. While determining the amount of foreseeable loss, all elements of costs and related incidental income not included in contract revenue is taken into consideration.
- iv. Revenue from contracts for the rendering of services which are directly related to the construction of an asset is recognised on similar basis as stated in iii above.
- v. Revenue from construction/project related activity and contracts executed in joint ventures under work-sharing arrangement [being jointly controlled operations, in terms of Accounting Standard (AS) 27 "Financial Reporting of Interests in Joint Ventures"], are recognised on the same basis as similar contracts independently executed by the Company.
- vi. Revenue from service related activities is recognised using the proportionate completion method.
- vii. Revenue from engineering and service fees is recognised as per the terms of the contract.
- viii. Profit/loss on contracts executed by Integrated Joint Ventures under profit-sharing arrangement [being Jointly Controlled Entities, in terms of Accounting Standard (AS) 27 "Financial Reporting of Interests in Joint

NOTES FORMING PART OF ACCOUNTS (CONTD.)

Ventures"] is accounted as and when the same is determined by the joint venture. Revenue from services rendered to such joint ventures is accounted on accrual basis.

b. Other operational revenue

Other operational revenue represents income earned from the activities incidental to the business and is recognised when the right to receive the income is established as per the terms of the contract.

B. Other Income

i. Interest income is accrued at applicable interest rate.

ii. Dividend income is accounted in the period in which the right to receive the same is established.

iii. Other items of income are accounted as and when the right to receive arises.

4. Extraordinary and exceptional Items

Income or expenses that arise from events or transactions that are clearly distinct from the ordinary activities of the Company are classified as extraordinary items. Specific disclosure of such events/transactions is made in the financial statements. Similarly, any external event beyond the control of the Company, significantly impacting income or expense, is also treated as extraordinary item and disclosed as such.

On certain occasions, the size, type or incidence of an item of income or expense, pertaining to the ordinary activities of the Company, is such that its disclosure improves an understanding of the performance of the Company. Such income or expense is classified as an exceptional item and accordingly disclosed in the notes to accounts.

5. Research and development

Revenue expenditure on research and development is expensed under respective heads of account in the period in which it is incurred.

6. Employee benefits

a. Short term employee benefits:

All employee benefits falling due wholly within twelve months of rendering the service are classified as short term employee benefits. The benefits like salaries, wages, short term compensated absences etc. and the expected cost of bonus, ex-gratia are recognised in the period in which the employee renders the related service.

b. Post-employment benefits:

i. Defined contribution plans: The Company's superannuation scheme, state governed provident fund scheme, employee state insurance scheme and employee pension scheme are defined contribution plans. The contribution paid/payable under the schemes is recognised during the period in which the employee renders the related service.

ii. Defined benefit plans: The employees' gratuity fund schemes, post-retirement medical care scheme, pension scheme and provident fund scheme managed by trust are the Company's defined benefit plans. The present value of the obligation under such defined benefit plans is determined based on actuarial valuation using the Projected Unit Credit Method.

The obligation is measured at the present value of the estimated future cash flows. The discount rate used for determining the present value of the obligation under defined benefit plans, is based on the market yield on government securities of a maturity period equivalent to the weighted average maturity profile of the related obligations at the Balance Sheet date.

Actuarial gains and losses are recognised immediately in the Statement of Profit and Loss.

The interest element in the actuarial valuation of defined benefit plans, which comprises the implicit interest cost and the impact of changes in discount rate, is classified under finance costs. The balance charge is recognised as employee benefit expenses in the Statement of Profit and Loss.

In case of funded plans, the fair value of the plan assets is reduced from the gross obligation under the defined benefit plans to recognise the obligation on a net basis.

Gains or losses on the curtailment or settlement of any defined benefit plan are recognised when the curtailment or settlement occurs. Past service cost is recognised as expense on a straight-line basis over the average period until the benefits become vested.

c. Long term employee benefits: The obligation for long term employee benefits such as long term compensated absences, long service award etc. is recognised in the similar manner as in the case of defined benefit plans as mentioned in (b)(ii) above.

d. Termination benefits: Termination benefits such as compensation under voluntary retirement cum pension scheme are recognised as expense in the period in which they are incurred.

NOTES FORMING PART OF ACCOUNTS (CONTD.)

7. Tangible Fixed assets

Tangible fixed assets are stated at original cost net of tax/duty credits availed, if any, less accumulated depreciation and cumulative impairment. Assets acquired on hire purchase basis are stated at their cash values. Specific know-how fees paid, if any, relating to plant and equipment is treated as part of cost thereof.

Administrative and other general overhead expenses that are specifically attributable to construction or acquisition of fixed assets or bringing the fixed assets to working condition are allocated and capitalised as a part of the cost of the fixed assets.

Own manufactured assets are capitalised at cost including an appropriate share of overheads.

Tangible assets not ready for the intended use on the date of the Balance Sheet are disclosed as "capital work-in-progress". (Also refer to policy on leases, borrowing costs, impairment of assets and foreign currency transactions *infra*.)

8. Leases

The determination of whether an agreement is, or contains, a lease is based on the substance of the agreement at the date of inception.

a. Finance leases:

- i. Assets acquired under leases where the Company has substantially all the risks and rewards of ownership are classified as finance leases. Such assets are capitalised at the inception of the lease at the lower of the fair value or the present value of minimum lease payments and a liability is created for an equivalent amount. Each lease rental paid is allocated between the liability and the interest cost, so as to obtain a constant periodic rate of interest on the outstanding liability for each period.
- ii. Assets given under Leases where the Company has transferred substantially all the risks and rewards of ownership to lessee, are classified as finance leases. Assets given under a finance lease are recognised as a receivable at an amount equal to the net investment in the lease. Lease income is recognised over the period of the lease so as to yield a constant rate of return on the net investment in the lease.
- iii. Initial direct costs relating to assets given on finance leases are charged to Statement of Profit and Loss.

Operating leases:

- i) Assets acquired on leases where a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Lease rentals are charged to the Statement of Profit and Loss on accrual basis.
- ii) Assets leased out under operating leases are capitalised. Rental income is recognised on accrual basis over the lease term. (Also refer to policy on depreciation *infra*).

9. Depreciation

a. Owned assets

i. Assets carried at historical cost:

Depreciation on assets is calculated at the rates prescribed under Schedule XIV to the Companies Act, 1956. However, in respect of the following asset categories, the depreciation is provided at higher rates in line with their estimated useful life.

Category of asset	Rate of Depreciation (% p.a.)
i) Furniture and fixtures	10.00
ii) Office Equipment	
Multifunctional devices (fax machine/scanner/printers), inkjet/laserjet printers, switches (audio/video) and projectors	25.00
Others	6.67
iii) Computers	
Desktop, Server & related components	16.67
iv) Plant and Equipment general	
a) Cranes below 100 ton capacity used for construction activity	6.67
b) Minor plant & equipment of construction activity	20.00
c) Heavy lift equipment of construction activity	5.00
d) Equipment for tunnelling & laying electrical transmission lines (other than those employed in heavy construction work)	10.00
e) Equipment used in construction industry for concreting, road making, crushing, piling, pipeline laying, welding etc.	8.33
f) DG sets above 30 kva	8.33
g) Erection winches above 2 tons	8.33

NOTES FORMING PART OF ACCOUNTS (CONTD.)

Category of asset	Rate of Depreciation (% p.a.)
h) Strand Jack system, theodolite, total station etc. used in construction industry	8.33
i) Specialised machine tools, dies, jigs, fixtures, gauges for electrical business	20.00
j) Desktops and laptops given to employees under the Company's scheme	33.33
k) Other laptops	25.00
l) Tunnel Boring Machine	50.00
v) Air conditioning and refrigeration equipment	8.33
vi) Laboratory and canteen equipment	12.50
vii) Motor cars	14.14

iii. Depreciation for additions to/deductions from, owned assets is calculated pro rata from/to the month of additions/deductions. Extra shift depreciation is provided on a location basis.

iv. Depreciation charge for impaired assets is adjusted in future periods in such a manner that the revised carrying amount of the asset is allocated over its remaining useful life.

b. Leased assets:

Assets acquired under finance leases are depreciated on a straight line method over the lease term. Where there is reasonable certainty that the Company shall obtain ownership of the assets at the end of the lease term, such assets are depreciated at the rates prescribed under Schedule XIV to the Companies Act, 1956 or at the higher rates adopted by the Company for similar assets.

Leasehold land: Land acquired under long term lease is classified under "tangible assets" and is depreciated over the period of lease.

10. Intangible assets and amortization

Intangible assets are stated at original cost net of tax/duty credits availed, if any, less accumulated amortisation and cumulative impairment. Intangible assets are recognised when it is probable that the future economic benefits that are attributable to the asset will flow to the enterprise and the cost of the asset can be measured reliably. Intangible assets are amortised as follows:

a. Specialised software: over a period of six years

b. Technical know-how: over a period of six years in case of foreign technology and three years in the case of indigenous technology

Administrative and other general overhead expenses that are specifically attributable to acquisition of intangible assets are allocated and capitalised as a part of the cost of the intangible assets.

Intangible assets not ready for the intended use on the date of the Balance Sheet are disclosed as "Intangible assets underdevelopment".

Amortisation on impaired assets is provided by adjusting the amortisation charges in the remaining periods so as to allocate the asset's revised carrying amount over its remaining useful life.

11. Impairment of assets

As at each Balance Sheet date, the carrying amount of assets is tested for impairment so as to determine:

a. the provision for impairment loss, if any; and

b. the reversal of impairment loss recognised in previous periods, if any.

Impairment loss is recognised when the carrying amount of an asset exceeds its recoverable amount. Recoverable amount is determined:

a. in the case of an individual asset, at the higher of the net selling price and the value in use;

b. in the case of a cash generating unit (a group of assets that generates identified, independent cash flows), at the higher of the cash generating unit's net selling price and the value in use.

(Value in use is determined as the present value of estimated future cash flows from the continuing use of an asset and from its disposal at the end of its useful life).

12. Investment:

Trade investments comprise investments in subsidiary companies, joint ventures, associate companies and in the entities in which the Company has strategic business interest.

Investments, which are readily realisable and are intended to be held for not more than one year from the date of acquisition, are classified as current investments. All other investments are classified as long term investments.

NOTES FORMING PART OF ACCOUNTS (CONTD.)

Long term investments including trade investments are carried at cost, after providing for any diminution in value, if such diminution is other than temporary in nature. Investments in integrated joint ventures are carried at cost net of adjustments for Company's share in profits or losses as recognised.

Current investments are carried at lower of cost and fair value. The determination of carrying amount of such investments is done on the basis of weighted average cost of each individual investment.

Purchase and sale of investments are recognised based on the trade date accounting.

13. Inventories

Inventories are valued after providing for obsolescence, as under:

- a. Raw materials, components, construction materials, stores, spares and loose tools at lower of weighted average cost or net realisable value
- b. Manufacturing work-in-progress at lower of cost including related overheads or net realisable value. In the case of qualifying assets, cost also includes applicable borrowing costs vide policy relating to borrowing costs
- c. Finished goods and stock in trade (in respect of goods acquired for trading) at lower of weighted average cost or net realisable value. Cost includes related overheads and excise duty paid/payable on such goods.

14. Cash and bank balances

Cash and bank balances also include fixed deposits, margin money deposits, earmarked balances with banks and other bank balances which have restrictions on repatriation. Short term and liquid investments being not free from more than insignificant risk of change in value, are not included as part of cash and cash equivalents.

15. Securities premium account

- a. Securities premium includes:
The difference between the market value and the consideration received in respect of shares issued pursuant to Stock Appreciation Rights Scheme

The discount allowed, if any, in respect of shares allotted pursuant to Stock Options Scheme.
- b. The following expenses are written off against securities premium account:
Expenses incurred on issue of shares
Expenses (net of tax) incurred on issue of debentures/bonds
Premium (net of tax) on redemption of debentures/bonds

16. Borrowing Costs:

Borrowing costs include interest, commitment charges, amortisation of ancillary costs, amortisation of discounts/premium related to borrowings, finance charges in respect of assets acquired on finance lease and exchange differences arising from foreign currency borrowings, to the extent they are regarded as an adjustment to interest costs.

Borrowing costs that are attributable to the acquisition, construction or production of a qualifying asset are capitalised/inventorised as part of cost of such asset till such time the asset is ready for its intended use or sale. A qualifying asset is an asset that necessarily requires a substantial period of time to get ready for its intended use or sale. All other borrowing costs are recognised as an expense in the period in which they are incurred.

17. Employee stock ownership schemes

In respect of stock options granted pursuant to the Company's Stock Options Scheme, the intrinsic value of the options (excess of market price of the share over the exercise price of the option) is treated as discount and accounted as employee compensation cost over the vesting period.

18. Foreign currency transactions, foreign operations, forward contracts and derivatives

- a. The reporting currency of the Company is Indian rupee.
- b. Foreign currency transactions are recorded on initial recognition in the reporting currency, using the exchange rate at the date of the transaction. At each Balance Sheet date, foreign currency monetary items are reported using the closing rate.
Non-monetary items, carried at historical cost denominated in a foreign currency, are reported using the exchange rate at the date of the transaction.
Exchange differences that arise on settlement of monetary items or on reporting of monetary items at each Balance Sheet date at the closing rate are recognised as income or expense in the period in which they arise
- c. Financial statements of foreign operations comprising jobs contracted are treated as integral operations and translated as in the same manner as foreign currency transactions, as described above. Exchange differences arising on such translation are recognized as income or expense of the period in which they arise.

NOTES FORMING PART OF ACCOUNTS (CONTD.)

- d. Forward contracts, other than those entered into to hedge foreign currency risk on unexecuted firm commitments or highly probable forecast transactions, are treated as foreign currency transactions and accounted accordingly as per Accounting Standard (AS) 11 "The Effects of Changes in Foreign Exchange Rates". Exchange differences arising on such contracts are recognised in the period in which they arise.

Gains and losses arising on account of roll over/cancellation of forward contracts are recognised as income/expense of the period in which such roll over/cancellation takes place.

- e. All the other derivative contracts, including forward contracts entered into to hedge foreign currency risks on unexecuted firm commitments and highly probable forecast transactions, are recognised in the financial statements at fair value as on the Balance Sheet date, in pursuance of the announcement of the ICAI dated March 29, 2008 on accounting of derivatives. In addition, the derivative arrangements embedded in the contracts entered in the course of business are accounted separately if the economic characteristics and risks of the embedded derivatives are not closely related to economic characteristics and risks of the host contract [Note Q23(a)].

The Company has adopted Accounting Standard (AS) 30 "Financial Instruments: Recognition and Measurement" for accounting of such derivative contracts, not covered under Accounting Standard (AS) 11 "The Effects of Changes in Foreign Exchange Rates", as mandated by the ICAI in the aforesaid announcement.

Accordingly, the resultant gains or losses on fair valuation/settlement of the derivative contracts (including embedded derivatives) covered under Accounting Standard (AS) 30 "Financial Instruments: Recognition and Measurement" are recognised in the Statement of Profit and Loss or Balance Sheet as the case may be after applying the test of hedge effectiveness. Where the hedge in respect of off-Balance Sheet items is effective, the gains or losses are recognised in the "hedging reserve" which forms part of "reserves and surplus" in the Balance Sheet. The amount recognised in the "hedging reserve" is transferred to the Statement of Profit and Loss in the period in which the underlying hedged item affects the Statement of Profit and Loss. Gains or losses in respect of ineffective hedges are recognised in the Statement of Profit and Loss in the period in which such gains or losses are incurred.

- f. The premium paid/received on a foreign currency forward contract is accounted as expense/income over the life of the contract.

19. Segment accounting

a. Segment accounting policies

Segment accounting policies are in line with the accounting policies of the Company. In addition, the following specific accounting policies have been followed for segment reporting:

- i. Segment revenue includes sales and other income directly identifiable with/allocable to the segment including inter segment revenue
- ii. Expenses that are directly identifiable with/allocable to segments are considered for determining the segment result. Expenses which relate to the Company as a whole and not allocable to segments are included under "unallocable corporate expenditure"
- iii. Income which relates to the Company as a whole and not allocable to segments is included in "unallocable corporate income"
- iv. Segment result includes margins on inter-segment capital jobs, which are reduced in arriving at the profit before tax of the Company
- v. Segment assets and liabilities include those directly identifiable with the respective segments. Unallocable corporate assets and liabilities represent the assets and liabilities that relate to the Company as a whole and not allocable to any segment

b. Inter-segment transfer pricing

Segment revenue resulting from transactions with other business segments is accounted on the basis of transfer price agreed between the segments. Such transfer prices are either determined to yield a desired margin or agreed on a negotiated basis.

20. Taxes on Income

Tax on income for the current period is determined on the basis of taxable income and tax credits computed in accordance with the provisions of the Income Tax Act, 1961 and based on the expected outcome of assessments/appeals.

Deferred tax is recognised on timing differences between the income accounted in financial statements and the taxable income for the year, and quantified using the tax rates and laws enacted or substantively enacted as on the Balance Sheet date.

Deferred tax assets relating to unabsorbed depreciation/business losses/losses under the head "capital gains" are recognised and carried forward to the extent there is virtual certainty that sufficient future taxable income will be available against which such deferred tax assets can be realised.

Other deferred tax assets are recognised and carried forward to the extent that there is a reasonable certainty that sufficient future taxable income will be available against which such deferred tax assets can be realised.

NOTES FORMING PART OF ACCOUNTS (CONTD.)

21. Accounting for interests in Joint Ventures are accounted as follows:

Type of joint venture	Accounting treatment
Jointly controlled Operations	Company's share of revenues, common expenses, assets and liabilities are included in revenues, expenses, assets and liabilities respectively.
Jointly controlled entities	(a) integrated joint ventures: <ul style="list-style-type: none"> (i) Company's share in profits or losses of integrated joint ventures is accounted on determination of the profits or losses by the joint ventures. (ii) Investments in integrated joint ventures are carried at cost net of Company's share in recognised profits or losses. (b) Incorporated jointly controlled entities: <ul style="list-style-type: none"> (i) Income on investments in incorporated jointly controlled entities is recognised when the right to receive the same is established. (ii) Investment in such joint ventures is carried at cost after providing for any diminution in value which is other than temporary in nature.

22. Provisions, contingent liabilities and contingent assets

Provisions are recognised for liabilities that can be measured only by using a substantial degree of estimation, if

- a. the Company has a present obligation as a result of a past event
- b. a probable outflow of resources is expected to settle the obligation and
- c. the amount of the obligation can be reliably estimated

Reimbursement expected in respect of expenditure required to settle a provision is recognised only when it is virtually certain that the reimbursement will be received.

Contingent liability is disclosed in case of

- a. a present obligation arising from past events, when it is not probable that an outflow of resources will be required to settle the obligation
- b. a present obligation arising from past events, when no reliable estimate is possible
- c. a possible obligation arising from past events where the probability of outflow of resources is not remote

Contingent assets are neither recognised, nor disclosed.

Provisions, contingent liabilities and contingent assets are reviewed at each Balance Sheet date.

23. Commitments

Commitments are future liabilities for contractual expenditure.

Commitments are classified and disclosed as follows:

- a. Estimated amount of contracts remaining to be executed on capital account and not provided for
- b. Uncalled liability on shares and other investments partly paid
- c. Funding related commitment to subsidiary, associate and joint venture companies and
- d. Other non-cancellable commitments, if any, to the extent they are considered material and relevant in the opinion of management.

Other commitments related to sales/procurements made in the normal course of business are not disclosed to avoid excessive details.

24. Operating cycle for current and non-current classification

Operating cycle for the business activities of the Company covers the duration of the specific project/contract/product line/service including the defect liability period, wherever applicable and extends up to the realisation of receivables (including retention monies) within the agreed credit period normally applicable to the respective lines of business.

25. Cash Flow Statement

Cash Flow Statement is prepared segregating the cash flows from operating, investing and financing activities. Cash flow from operating activities is reported using indirect method. Under the indirect method, the net profit is adjusted for the effects of:

- I. transactions of a non-cash nature
- II. any deferrals or accruals of past or future operating cash receipts or payments and
- III. items of income or expense associated with investing or financing cash flows

Cash and cash equivalents (including bank balances) are reflected as such in the Cash Flow Statement. Those cash and cash equivalents which are not available for general use as on the date of Balance Sheet are also included under this category with a specific disclosure.

NOTES FORMING PART OF ACCOUNTS (CONTD.)

B. SHARE CAPITAL

	As at 31.03.2014		As at 31.03.2013	
	Number of shares	(₹ Crore)	Number of shares	(₹ Crore)
B(I) Authorised, issued, subscribed and paid up:				
Authorised:				
Equity shares of ₹ 10 each	2,000,000,000	2,000.00	50,000	0.05
Preference shares of ₹ 10 each	1,000,000,000	1,000.00	–	–
Issued:				
Equity shares of ₹ 10 each	1,000,050,000	1,000.05	50,000	0.05
Preference shares of ₹ 10 each	500,000,000	500.00	–	–
Subscribed and paid up:				
Equity shares of ₹ 10 each	1,000,050,000	1,000.05	50,000	0.05
Preference shares of ₹ 10 each	500,000,000	500.00	–	–
TOTAL		1,500.05		0.05

B(II) Reconciliation of the number of equity shares and share capital:

Issued, subscribed and fully paid up equity shares outstanding at the beginning of the year:

Equity shares of ₹ 10 each	50,000	0.05	50,000	0.05
Preference shares of ₹ 10 each	–	–	–	–

Add: Shares issued during the year:

Equity shares of ₹ 10 each	1,000,000,000	1,000.00	–	–
Preference shares of ₹ 10 each	500,000,000	500.00	–	–

Issued, subscribed and fully paid up equity shares outstanding at the end of the year:

Equity shares of ₹ 10 each	1,000,050,000	1,000.05	50,000	0.05
Preference shares of ₹ 10 each	500,000,000	500.00	–	–

B(III) Terms/rights attached to equity and preference shares

(a) Equity shares:

Equity shares of the Company are issued at a par value of ₹ 10 per share. Each holder of equity shares is entitled to one vote per share.

(b) Preference shares:

The Company has issued 10% redeemable preference shares with rights and privileges as provided below:

- Dividend payable is 10% p.a. non-cumulative (for FY 2013-14 pro-rata from date of allotment).
- Preference shares are non-convertible, redeemable at par at the end of 15 years from the date of allotment
- Company has anytime call option and Larsen & Toubro Limited has anytime put option after 10 years.

B(IV) Shareholders holding more than 5% of equity share as at the end of the period:

	As at 31.03.2014		As at 31.03.2013	
	Number of shares	Shareholding %	Number of shares	Shareholding %
Larsen & Toubro Limited:				
Equity shares of ₹ 10 each	1,000,050,000	100%	50,000	100%
Preference shares of ₹ 10 each	500,000,000	100%	–	–

B(V) The Directors recommend payment of 10% (pro-rata) preference dividend on the number of shares outstanding as on the record date. Provision for preference dividend has been made in the books of account for 50,00,00,000 preference shares outstanding as at March 31, 2014 amounting to ₹ 7.26 crore.

NOTES FORMING PART OF ACCOUNTS (CONTD.)

C. RESERVES AND SURPLUS

	As at 31.03.2014		As at 31.03.2013	
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Hedging reserve (net of tax): [Note Q(10)]				
As per last Balance Sheet	-		-	
Transfer pursuant to scheme of arrangement	(148.27)		-	
Addition/(deduction) during the year (net)	31.61		-	
		(116.66)		-
Capital reserve				
As per last Balance Sheet	-		-	
Addition/(deduction) during the year (net)	0.02		-	
		0.02		-
Surplus Statement of Profit and Loss				
As per last Balance Sheet	(0.01)		(0.01)	
Profit for the year	105.73		(0.00)	
	105.72		(0.01)	
Less: proposed dividend on preference shares	(7.26)		-	
Additional tax on dividend	(1.23)		-	
	(8.49)	97.23	-	(0.01)
TOTAL		(19.41)		(0.01)

D D(I) LONG-TERM BORROWINGS

	As at	As at
	31.03.2014	31.03.2013
	(₹ Crore)	(₹ Crore)
Loans and advances from related parties (Unsecured) (Inter Corporate borrowing from Holding Company, repayment due on April 30, 2015)	260.00	-
	260.00	-

D(II) OTHER LONG-TERM LIABILITIES

Forward contract payable	2.25	-
Embedded derivatives payable	33.69	-
	35.93	-

D(III) LONG-TERM PROVISIONS

Provision for employee benefits		
Post-retirement medical benefits plan	7.07	-
Interest rate guarantee-provident fund	3.86	-
	10.93	-

NOTES FORMING PART OF ACCOUNTS (CONTD.)

E E(I) SHORT TERM BORROWINGS

	As at 31.03.2014			As at 31.03.2013		
	Secured (₹ Crore)	Unsecured (₹ Crore)	Total (₹ Crore)	Secured (₹ Crore)	Unsecured (₹ Crore)	Total (₹ Crore)
Loans repayable on demand from banks	184.99	-	184.99	-	-	-
Short term loans and advances from banks	89.87	172.25	262.12	-	-	-
Loans from related parties (Inter Corporate borrowing from Holding Company)	-	339.70	339.70	-	-	-
	274.86	511.95	786.81	-	-	-

Note: Loans repayable on demand from banks include fund based working capital facilities viz. cash credits and demand loans. Working capital facilities and other non-fund based facilities viz. bank guarantees and letters of credit, are secured by hypothecation of inventories, book debts and receivables.

E(II) TRADE PAYABLES	As at	As at 31.03.2013
	31.03.2014 (₹ Crore)	(₹ Crore)
Acceptances	502.94	-
Due to related parties:		
Holding Company and fellow subsidiary companies (previous year ₹ 54,511)	428.46	0.01
Micro and small enterprises [Note Q(18)]	15.64	-
Due to others	1,761.85	0.00
	2,708.89	0.01

E(III) OTHER CURRENT LIABILITIES

Interest accrued but not due on borrowings	3.51	-
Interest accrued and due on borrowings	0.02	-
Due to customers (construction related activity)	360.00	-
Advances from customers	313.70	-
Embedded derivative payable	101.98	-
Forward contracts payable	50.75	-
Other payable (including sales tax, service tax and others)	77.04	-
	906.99	-

E(IV) SHORT TERM PROVISIONS

	As at 31.03.2014		As at 31.03.2013	
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Provision for employee benefits :				
Compensated absences	37.04		-	
Post-retirement medical benefits plan [Note Q(5)]	0.04		-	
Bonus provision	0.12		-	
Interest rate guarantee (PF)	0.75		-	
		37.95		
Others:	-			
Proposed preference dividend [Note A(V)]	7.26		-	
Additional tax on dividend	1.23		-	
Other provisions (AS 29 Related) [Note Q(12)]	37.26		-	
		45.75		
		83.70		

NOTES FORMING PART OF ACCOUNTS (CONTD.)

F FIXED ASSETS

F(i) FIXED ASSETS - TANGIBLE

(₹ Crore)

Particulars	COST/VALUATION					DEPRECIATION/AMORTISATION					BOOK VALUE	
	As at 31-03-2013	Pursuant to acquisition of HC Undertaking*	Additions	Deductions	As at 31-03-2014	As at 31-03-2013	Pursuant to acquisition of HC Undertaking*	Additions	Deductions	As at 31-03-2014	As at 31-03-2014	As at 31-03-2013
Land												
Free Hold	-	1.03	-	-	1.03	-	-	-	-	-	1.03	-
Lease Hold	-	48.47	28.40	-	76.87	-	1.70	0.81	-	2.51	74.36	-
Sub Total - Land	-	49.50	28.40	-	77.90	-	1.70	0.81	-	2.51	75.39	-
Buildings	-	117.17	56.17	-	173.34	-	10.71	4.31	-	15.02	158.32	-
Plant and equipment	-	882.57	138.28	18.65	1,002.20	-	295.86	80.33	3.08	373.11	629.09	-
Computers	-	53.09	4.75	1.53	56.31	-	34.28	6.94	1.23	39.99	16.32	-
Office equipments	-	17.83	2.72	0.47	20.08	-	7.62	1.80	0.07	9.35	10.73	-
Furniture & fixtures	-	12.26	2.78	0.03	15.01	-	7.34	1.20	0.03	8.51	6.50	-
Vehicles												
Owned	-	29.85	7.48	2.41	34.92	-	9.74	4.02	0.09	13.67	21.25	-
Leased	-	0.27	-	0.27	-	-	0.17	-	0.17	-	-	-
Sub Total - Vehicles	-	30.12	7.48	2.68	34.92	-	9.91	4.02	0.26	13.67	21.25	-
Total	-	1,162.54	240.58	23.36	1,379.76	-	367.42	99.41	4.67	462.16	917.60	-
Previous Year	-	-	-	-	-	-	-	-	-	-	-	-
Add: Capital work in progress											25.13	-
Total - Tangible assets											942.73	-

F(ii) FIXED ASSETS - INTANGIBLE

(₹ Crore)

Particulars	COST/VALUATION					DEPRECIATION/AMORTISATION					BOOK VALUE	
	As at 31-03-2013	Pursuant to acquisition of HC Undertaking*	Additions	Deductions	As at 31-03-2014	As at 31-03-2013	Pursuant to acquisition of HC Undertaking*	Additions	Deductions	As at 31-03-2014	As at 31-03-2014	As at 31-03-2013
Specialised softwares	-	4.51	0.51	0.03	4.99	-	2.39	0.63	0.01	3.01	1.98	-
Total- Specialised softwares	-	4.51	0.51	0.03	4.99	-	2.39	0.63	0.01	3.01	1.98	-
Previous Year	-	-	-	-	-	-	-	-	-	-	-	-
Total - Intangible assets											1.98	-

* Refer Note Q2

G LONG TERM LOANS AND ADVANCES

	As at 31.03.2014 (₹ Crore)	As at 31.03.2013 (₹ Crore)
Unsecured considered good		
Capital advances	19.38	-
Other loans and advances		
Security deposits	13.56	-
Advances recoverable in cash or in kind	55.29	-
Forward contract receivable	17.92	-
Embedded derivative receivable	1.91	-
Balances with customs, port trust etc.	0.04	-
	108.10	-

NOTES FORMING PART OF ACCOUNTS (CONTD.)

H H(I) INVENTORIES (at cost or net realisable value whichever is lower)

	As at 31.03.2014 (₹ Crore)	As at 31.03.2013 (₹ Crore)
Components	14.82	–
Construction material	2.74	–
Manufacturing work -in- progress	1.19	–
Stores and spares	2.28	–
	<u>21.03</u>	<u>–</u>

	As at 31.03.2014		As at 31.03.2013	
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
H(II) TRADE RECEIVABLES				
Unsecured:				
Debts outstanding for more than 6 months				
Considered good	806.97		–	
Considered doubtful	18.53		–	
	<u>825.50</u>		–	
Other debts: [Note H(II)(a)]				
Considered good	905.90		–	
Considered doubtful	–		–	
	<u>1,731.40</u>		–	
Less: Allowance for doubtful debts	<u>18.53</u>		–	
		1,712.87		–
Retention money				
Unsecured:				
Other retention money:				
Considered good		461.79		–
		<u>2,174.66</u>		<u>–</u>

H(II) (a) Unsecured-other debts includes ₹ 376.68 crore (*previous year Nil*) contractually not due.

H(III) CASH AND BANK BALANCES

	As at 31.03.2014 (₹ Crore)	As at 31.03.2013 (₹ Crore)
Cash and cash equivalents		
Balance with banks	127.83	0.05
Remittance in transit	58.36	–
Cash on hand	0.92	–
	<u>187.11</u>	<u>0.05</u>

NOTES FORMING PART OF ACCOUNTS (CONTD.)

H(IV) SHORT TERM LOANS AND ADVANCES

	As at 31.03.2014		As at 31.03.2013	
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Unsecured considered good				
Fellow subsidiaries				
Others		269.75		–
Other loans and advances				
Security deposits		8.64		–
Advances recoverable in cash or in kind		440.35		–
Income tax receivable of current year (net of provision ₹ 44 crores)		8.17		–
Considered doubtful				
Other loan and advances	42.69		–	
Less: Allowance for doubtful loan and advances	(42.69)		–	
		0		–
		726.91		–

H(V) OTHER CURRENT ASSET

	As at	As at
	31.03.2014	31.03.2013
	(₹ Crore)	(₹ Crore)
Due from customers (construction and project related activity)	2,094.41	–
	2,094.41	–

I CONTINGENT LIABILITIES

(a) Claims against the Company not acknowledged as debts	2.95	–
(b) Sales-tax liability that may arise in respect of matters in appeal	20.66	–
(c) Income-tax liability (including penalty) that may arise in respect of which the Company is in appeal	2.40	–

Notes:

- The Company does not expect any reimbursements in respect of the above contingent liabilities.
- It is not practicable to estimate the timing of cash outflows, if any, in respect of matters at (a) to (c) above pending resolution of the appellate proceedings.

J COMMITMENTS

	As at	As at
	31.03.2014	31.03.2013
	(₹ Crore)	(₹ Crore)
Estimated amount of contracts remaining to be executed on capital account (net of advances)	62.30	–

NOTES FORMING PART OF ACCOUNTS (CONTD.)

K REVENUE FROM OPERATIONS

	As at 31.03.2014		As at 31.03.2013	
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Sales and service:				
Manufacturing and trading activity	19.07		–	
Construction and project related activity	8,597.53		–	–
Engineering and service fees	33.79		–	
		8,650.39		–
Other operational revenue:				
Income from hire of plant and equipment	18.29		–	
Technical fees	7.41		–	
Income from services to Group companies	28.92		–	
Premium earned (net) on related forward exchange contract	9.75		–	
Miscellaneous income	22.27		–	
		86.64		–
		8,737.03		–

K(I) Revenue from sales and service include ₹ 10.29 crore (*previous year Nil*) for price variations net of liquidated damages in terms of contracts with the customers.

L OTHER INCOME

	2013-14	2012-13
	(₹ Crore)	(₹ Crore)
Interest income		
Others	0.10	–
Net gain/(loss) on sale of fixed assets (net)	0.39	–
Provision no longer required written back	0.40	–
	0.89	–

M MANUFACTURING, CONSTRUCTION AND OPERATING EXPENSES

	2013-14		2012-13	
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Materials consumed				
Raw materials and components [Q(19)(b)]	2,759.40		–	
Less: scrap sales	27.58		–	
		2,731.82		–
Construction materials		329.23		–
Stores,spares and tools consumed		120.94		–
Sub-contracting charges		3,210.61		–
Changes in inventories of work- in- progress and stock- in- trade:				
Closing stock:				
Work-in-progress	52.97		–	
Less: opening stock:				
Work-in-progress	79.72		–	
		26.75		–

NOTES FORMING PART OF ACCOUNTS (CONTD.)

	2013-14		2012-13	
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Overheads charged by Holding Company and fellow subsidiaries		123.51		–
Miscellaneous expenses [Note O(I)](previous year ₹ 612)		12.69		0.00
Bad debts and advances written off	2.89		0.00	
Less: Allowance for doubtful debts and advances written back	2.22		–	
		0.67		–
Allowance for doubtful debts and advances (net)		(2.97)		–
Provision / (reversal)for foreseeable losses on construction contracts		73.08		–
Exchange (gain) /loss (net)		81.02		–
Other provisions [Note Q(12)]		6.18		–
		408.38		0.00

O(I) Aggregation of expenses disclosed vide notes M, N and O in respect of specific items are as follows:

Sr. No.	Nature of expenses	2013-14				2012-13			
		Note M	Note N	Note O	Total	Note M	Note N	Note O	Total
		(₹ Crore)							
1	Power & Fuel	131.80	–	3.26	135.06	–	–	–	–
2	Packing & Forwarding	9.15	–	–	9.15	–	–	–	–
3	Insurance	11.59	5.06	3.35	20.00	–	–	–	–
4	Rent	45.60	–	9.39	54.99	–	–	–	–
5	Rates & Taxes (previous year ₹ 680)	7.28	–	2.14	9.42	–	–	0.00	0.00
6	Travelling & Conveyance	144.77	–	22.30	167.07	–	–	–	–
7	Repairs to Buildings	–	–	1.24	1.24	–	–	–	–
8	General repairs and maintenance	21.79	–	13.23	35.01	–	–	–	–
9	Miscellaneous expenses (previous year ₹ 612)	34.24	–	12.69	46.93	–	–	0.00	0.00

P FINANCE COSTS

	2013-14 (₹ Crore)	2012-13 (₹ Crore)
Interest expenses	25.91	–
Exchange loss (attributable to finance costs)	16.05	–
	41.96	–

Q OTHER NOTES FORMING PART OF THE ACCOUNTS

Q(1) During the year, the Hydrocarbon Undertaking ('HC Undertaking') of Larsen & Toubro Limited ('L&T') was transferred to L&T Technologies Limited, which was incorporated as a Company on 2 April 2009 (refer note Q(2) below). The Company changed its name to L&T Hydrocarbon Engineering Limited on 21 May 2013 (hereinafter referred to as 'the Company').

NOTES FORMING PART OF ACCOUNTS (CONTD.)

Q(2) Scheme of arrangement:

- a) Pursuant to a Scheme of Arrangement ("Scheme") under Sections 391 to 394 of The Companies Act, 1956, entered into between the Company L&T, the HC Undertaking of L&T was transferred to the Company with effect from April 1, 2013 ("Appointed Date") for a lump sum cash consideration of ₹ 1,760.00 crores.

	(₹ Crore)	(₹ Crore)
ASSETS:		
Fixed Assets	923.38	
Long Term Loans & Advances	86.95	
Deferred Tax Assets (Net)	47.35	
Current Assets	5,512.91	
		6,570.59
LIABILITIES:		
Non-current Liabilities	35.35	
Current Liabilities	4,923.49	
		4,958.84
Net Assets		1,611.75
Specific identified reserves:		
Hedging Reserve (Debit balance)		148.27
Net Asset Value & Specific Identified Reserves of HC Undertaking		1,760.02
Cash Consideration paid to L&T		1,760.00
Capital Reserve		0.02

- b) The HC Undertaking of L&T was engaged in executing engineering, procurement and construction contracts on turnkey basis in the hydrocarbon upstream and mid- and down-stream sectors.
- c) The aforementioned Scheme was sanctioned by the Honourable Bombay High Court vide its order dated December 20, 2013 and it came into effect on January 16, 2014 ("Effective Date") upon which:
- The HC Undertaking together with all related assets, liabilities, specific identified reserves, employees, and other items specifically listed in the Scheme were deemed to have been vested and transferred, on a going concern basis, to the Company with retrospective effect from April 1, 2013; and
 - The business of HC Undertaking was deemed to have been carried out by L&T in trust for the Company from April 1, 2013 upto the effective date

Accordingly, all assets, liabilities and identified reserves of the erstwhile HC Undertaking as at March 31, 2013 have been recorded by the Company at their book values as at April 1, 2013. The difference between the cash consideration of ₹ 1,760.00 crores and the assets, liabilities and identified specific reserves amounting to ₹ 1760.02 crores is accounted as capital reserve (₹ 0.02 crores) in the books of the Company.

- d) In view of the aforesaid Scheme, the figures for the current year are not comparable to those of the previous year.

Q(3) The expenditure on research and development activities recognised as expense in the Statement of Profit and Loss is ₹ 11.48 crore (*previous year: Nil*). Further, the Company has incurred capital expenditure on research and development activities as of ₹ 0.14 crore (*previous year: Nil*).

Q(4) Disclosures pursuant to Accounting Standard (AS) 7 (Revised) "Construction Contracts":

	Particulars	2013-2014 (₹ Crore)	2012-2013 (₹ Crore)
i)	Contract revenue recognised for the financial year [Note no. (K)]	8,597.53	–
ii)	Aggregate amount of contract costs incurred and recognised profits (less recognised losses) as at end of the financial year for all contracts in progress as at that date	21,069.19	–
iii)	Amount of customer advances outstanding for contracts in progress as at end of the financial year	292.00	–
iv)	Retention amounts by customers for contracts in progress as at end of the financial year	461.79	–

Q(5) Disclosure pursuant to Accounting Standard (AS) 15 (Revised) "Employee Benefits"

- i. Defined contribution plans: [accounting policy no.A(6)(b)(i)] ₹ 5.72 crore (*previous year : Nil*) is recognised as an expense and included in "employee benefits expense" (Note no N) in the Statement of Profit and Loss.

NOTES FORMING PART OF ACCOUNTS (CONTD.)

- ii. The assets of the gratuity fund of L&T that pertain to the employees of the Company will be transferred to the gratuity fund of the Company when it is formed. The fair value of plan assets that pertain to the Company are as valued by the actuarial valuer as at March 31, 2014 and are disclosed below under present value of defined benefit obligations.
- iii. Defined benefit plans: [accounting policy no. A(6)(b)(ii)]
- a) The amounts recognised in Balance Sheet are as follows:

	Particulars	Gratuity plan		Post-retirement medical benefit plan		Trust-managed provident fund plan	
		As at 31.03.2014	As at 31.03.2013	As at 31.03.2014	As at 31.03.2013	As at 31.03.2014	As at 31.03.2013
		(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
A)	Present value of defined benefit obligation						
	– Wholly funded			–	–	2.83	–
	– Wholly unfunded	25.23	–	7.11	–		
	Less: Fair value of plan assets	24.96	–	–	–	2.82	–
	Less: Unrecognised past service costs	–	–	–	–		
	Amount to be recognised as liability or (asset)	0.27	–	7.11	–	0.01	–
B)	Amounts reflected in the Balance Sheet						
	Liabilities	0.27	–	7.11	–		
	Assets	–	–		–	–	–
	Net liability/(asset)	0.27	–	7.11	–	0.01	–
	Net liability/(asset) - current	0.27	–	0.04	–	0.01	–
	Net liability/(asset) - non-current	–	–	7.07	–	–	–

- b) The amounts recognised in Statement of Profit and Loss are as follows:

	Particulars	Gratuity plan		Post-retirement medical benefit plan		Trust-managed provident fund plan	
		2013-14	2012-13	2013-14	2012-13	2013-14	2012-13
		(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
1	Current service cost	2.41	–	0.70	–	1.05	–
2	Interest cost	2.07	–	0.62	–	0.02	–
3	Expected (return) on plan assets	(1.59)	–	–	–	(0.02)	–
4	Actuarial losses/(gains)	(1.81)	–	(0.49)	–	0.01	–
5	Past service cost			–	–	–	–
6	Actuarial gain/(loss) not recognised in books			–	–	(0.01)	–
	Total (1 to 6)	–	–			–	–
I	Amount included in "employee benefit expenses"	1.08	–	0.83	–	1.05	–
	Total	1.08	–	0.83	–	0.01	–
	Actual return on plan assets	0.80	–	–	–	0.01	–

NOTES FORMING PART OF ACCOUNTS (CONTD.)

- c) The changes in the present value of defined benefit obligation representing reconciliation of opening and closing balances thereof are as follows:

Particulars	Gratuity plan		Post-retirement medical benefit plan		Trust-managed provident fund plan	
	As at 31.03.2014	As at 31.03.2013	As at 31.03.2014	As at 31.03.2013	As at 31.03.2014	As at 31.03.2013
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Opening balance of the present value of defined benefit obligation	0	–	0	–	0	–
Add: Current service cost	2.41	–	0.70	–	1.05	–
Add: Interest cost	2.07	–	0.62	–	0.02	–
Add: Contribution by plan participants						
i) Employer	–	–	–	–	1.76	–
ii) Employee	–	–	–	–	–	–
iii) Transfer-in/(out)	25.11	–	6.28	–		
Add/(less): Actuarial losses/(gains)	(2.61)	–	(0.50)	–		
Less: Benefits paid	(1.75)	–	–	–	–	–
Add: Past service cost	–	–	–	–	–	–
Closing balance of the present value of defined benefit obligation	25.23	–	7.11	–	2.83	–

- d) Changes in the fair value of plan assets representing reconciliation of the opening and closing balances thereof are as follows:

Particulars	Gratuity plan		Trust-managed provident fund plan	
	As at 31.03.2014	As at 31.03.2013	As at 31.03.2014	As at 31.03.2013
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Opening balance of the fair value of the plan assets	–	–	–	–
Add: Expected return on plan assets*	1.59	–	0.02	–
Add/(Less): Actuarial gains/(losses)	(0.79)	–	(0.01)	–
Add: Contribution by the employer	3.79	–	1.05	–
Add/(less) : Transfer in/(out)	22.13	–	–	–
Add: Contribution by plan participants			1.76	–
Less: Benefits paid	(1.75)	–		
Closing balance of the plan assets	24.96	–	2.82	–

Notes: The fair value of the plan assets under the trust managed provident fund plan has been determined at amounts based on their value at the time of redemption, assuming a constant rate of return to maturity.

* Basis used to determine the overall expected return:

Expected return on plan assets is determined based on the assessment made at the beginning of the year on the return expected on its existing portfolio, along with the estimated increment to the plan assets and expected yield on the respective assets in the portfolio during the year.

NOTES FORMING PART OF ACCOUNTS (CONTD.)

e) The major categories of plan assets as a percentage of total plan assets are as follows:

Particulars	Gratuity plan		Trust-managed provident fund plan	
	As at 31.03.2014	As at 31.03.2013	As at 31.03.2014	As at 31.03.2013
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Government of India securities	45.00%	–	24.35%	–
State government securities	–	–	14.84%	–
Corporate bonds	50.00%	–	7.63%	–
Equity shares of listed companies	2.00%	–	–	–
Fixed deposits under special deposit scheme framed by central government for provident funds	–	–	–	–
Insurer managed funds	3.00%	–	–	–
Public sector unit bonds	–	–	41.48%	–
Special Desposit Scheme	–	–	11.62%	–
Mutual Funds	–	–	0.08%	–

f) Principal actuarial assumptions at the Balance Sheet date (expressed as weighted averages):

	As at 31.03.2014	As at 31.03.2013
	(₹ Crore)	(₹ Crore)
1 Discount rate:		
a) Gratuity plan	9.19%	–
b) Post-retirement medical benefit plan	9.19%	–
2 Expected return on plan assets:	7.50%	–
3 Annual increase in healthcare costs (see note below)	5.00%	–
4 Salary growth rate:		
a) Gratuity plan	5.00%	–

5. Attrition rate:

- For post-retirement medical benefit plan, the attrition rate varies from 2% to 8% (previous year: NA) for various age groups.
- For gratuity plan, the attrition rate varies from 1% to 6% (previous year: NA) for various age groups.

- The estimates of future salary increases, considered in actuarial valuation, take into account inflation, seniority, promotion and other relevant factors, such as supply and demand in the employment market.
- The interest payment obligation of trust-managed provident fund is assumed to be adequately covered by the interest income on long term investments of the fund. Any shortfall in the interest income over the interest obligation is recognised immediately in the Statement of Profit and Loss as actuarial losses.
- The obligation of the Company under the post-retirement medical benefit plan is limited to the overall ceiling limits. At present, healthcare cost, as indicated in the principal actuarial assumption given above, has been assumed to increase at 5% p.a.
- A one percentage point change in assumed healthcare cost trend rates would have the following effects on the aggregate of the service cost and interest cost and defined benefit obligation:

Particulars	Effect of 1% increase		Effect of 1% decrease	
	2013-2014	2012-2013	2013-2014	2012-2013
	(₹ Crore)	(₹ Crore)	(₹ Crore)	(₹ Crore)
Effect on the aggregate of the service cost and interest cost	0.27	–	(0.21)	–
Effect on defined benefit obligation	1.2	–	(0.95)	–

NOTES FORMING PART OF ACCOUNTS (CONTD.)

The amounts pertaining to defined benefit plans are as follows

	Particulars	As at 31.03.2014	As at 31.03.2013
		(₹ Crore)	(₹ Crore)
1	Post-retirement medical benefit plan (unfunded)	–	–
	Defined benefit obligation	7.11	–
	Experience adjustment plan liabilities	0.61	–
2	Gratuity plan (unfunded)		
	Defined benefit obligation	25.23	–
	Plan assets	24.96	–
	Surplus/(deficit)	0.27	–
	Experience adjustment plan liabilities	(0.28)	–
	Experience adjustment plan assets	(0.79)	–
3	Trust managed provident fund plan (funded)		
	Defined benefit obligation	2.83	–
	Plan assets	2.82	–
	Surplus/(deficit)	(0.01)	–

General descriptions of defined benefit plans:

1. Post-retirement medical benefit plan:

The Post-retirement medical benefit plan provides for reimbursement of health care costs to certain categories of employees post their retirement. The reimbursement is subject to an overall ceiling sanctioned based on cadre of the employee at the time of retirement.

2. Trust managed provident fund plan:

The Company's provident fund plan is managed by its holding company through a Trust permitted under the Provident Fund and Miscellaneous Provisions Act, 1952. The plan envisages contribution by employer and employees and guarantees interest at the rate notified by the provident fund authority. The contribution by employer and employee together with interest are payable at the time of separation from service or retirement, whichever is earlier. The benefit under this plan vests immediately on rendering of service.

The interest payment obligation of trust-managed provident fund is assumed to be adequately covered by the interest income on long term investments of the fund. Any shortfall in the interest income over the interest obligation is recognized immediately in the Statement of Profit and Loss as actuarial loss. Any loss / gain arising out of the investment risk and actuarial risk associated with the plan is also recognized as expense or income in the period in which such loss / gain occurs.

Q(6) Disclosures pursuant to Accounting Standard (AS 17) "Segment Reporting"

a) Information about business segments (information provided in respect of revenue items for the year ended March 31, 2014 and in respect of assets/liabilities as at March 31, 2014 denoted as "CY" below, previous year denoted as "PY")

i) Primary segments (business segments): The Company operates in only one segment, i.e. integrated EPC projects on turnkey basis in Hydrocarbon sector.

(ii) Secondary segments (geographical segments):

(₹ Crore)

Particulars	Domestic		Overseas		Total	
	CY	PY	CY	PY	CY	PY
External revenue by location of customers	4,014.87	–	4,722.16	–	8,737.03	–
Carrying amount of segment assets by location of assets	3,851.02	–	2,405.90	–	6,256.92	–
Cost incurred on acquisition of tangible and intangible fixed assets (includes assets acquired on transfer of HC Undertaking)	736.87	–	255.93	–	992.80	–

NOTES FORMING PART OF ACCOUNTS (CONTD.)

- b) Segment reporting: segment identification, reportable segments and definition of each reportable segment:
- i) Primary/secondary segment reporting format:
- [a] The risk-return profile of the Company's business is determined predominantly by the nature of its products and services. Accordingly, the business segments constitute the primary segments for disclosure of segment information.
- [b] In respect of secondary segment information, the Company has identified its geographical segments as (i) domestic and (ii) overseas. The secondary segment information has been disclosed accordingly.
- ii) Segment identification:
- Business segments have been identified on the basis of the nature of products/services, the risk-return profile of individual businesses, the organisational structure and the internal reporting system of the Company.
- iii) Reportable segments:
- Reportable segments have been identified as per the criteria specified in Accounting Standard (AS) 17 "Segment Reporting" issued by the Institute of Chartered Accountants of India.

Q(7) Disclosure of related parties/related party transactions pursuant to Accounting Standard (AS 18) "Related Party Disclosures"

- i. Related parties who exercise control

Sr. No.	Name of the related party	Relationship
1	Larsen & Toubro Limited	Holding Company

- ii. List of related parties with whom there were transactions during the year:

Sr. No.	Name of the related party	Relationship
1	Larsen & Toubro Limited	Holding Company
2	L&T Sargent & Lundy Limited	Fellow Subsidiary
3	L&T Valdel Engineering Limited	Fellow Subsidiary
4	L&T Shipbuilding Limited	Fellow Subsidiary
5	L&T Electrical and Automation FZE	Fellow Subsidiary
6	L&TGulf Private Limited	Fellow Subsidiary
7	L&T MHI Boilers Private Limited	Fellow Subsidiary
8	L&T Special Steels and Heavy Forgings Private Limited	Fellow Subsidiary
9	L&T Howden Private Limited	Fellow Subsidiary
10	L&T Sapura Shipping Private Limited	Fellow Subsidiary
11	L&T Sapura Offshore Private Limited	Fellow Subsidiary
12	EWAC Alloys Limited	Fellow Subsidiary
13	Larsen & Toubro Infotech Limited	Fellow Subsidiary
14	L&T Finance Limited	Fellow Subsidiary
15	Larsen & Toubro International FZE	Fellow Subsidiary
16	Larsen & Toubro Electromech LLC	Fellow Subsidiary
17	L&T Modular Fabrication Yard LLC	Fellow Subsidiary
18	Larsen & Toubro Kuwait Construction General Contracting Company, WLL	Fellow Subsidiary
19	Larsen & Toubro Atco Saudi LLC	Fellow Subsidiary
20	Larsen & Toubro Heavy Engineering LLC	Fellow Subsidiary
21	L&T Valves Limited	Fellow Subsidiary
22	PT TAMCO Indonesia	Fellow Subsidiary
23	L&T Hydrocarbon International LLC	Fellow Subsidiary
24	Larsen & Toubro Saudi Arabia LLC	Fellow Subsidiary
25	Larsen Toubro Arabia LLC	Fellow Subsidiary

- iii. Key management personnel with whom transactions were carried out during the year:

Key management personnel:			
1	Mr. K. Ravindranath (Whole-time director)	2	Mr. U. Dasgupta (Whole-time director)

NOTES FORMING PART OF ACCOUNTS (CONTD.)

iv. Disclosure of related party transactions:

(₹ Crore)

Sr. no.	Nature of transaction/relationship/major parties	2013-2014		2012-2013	
		Amount	Amounts for major parties	Amount	Amounts for major parties
1	Purchase of goods & services (including commission paid)				
	Holding Company (Larsen & Toubro Limited)	81.84		–	
	Fellow subsidiaries, including:	1044.54		–	
	Larsen & Toubro Electromech LLC		486.67		–
	L&T Modular Fabrication Yard LLC		363.86		–
	L&T Valves Limited		18.60		–
	L&T Gulf Private Limited		10.48		–
	Larsen & Toubro Kuwait Construction General Contracting Company, WLL		64.75		–
	Larsen & Toubro Heavy Engineering LLC		42.64		–
	L&T Sapura Shipping Private Limited		19.67		–
	L&T Sapura Offshore Private Limited		0.54		–
	L&T Valdel Engineering Limited		33.65		–
	EWAC Alloys Limited		2.73		–
	L&T Sargent & Lundy Limited		0.82		–
	Larsen & Toubro International FZE		0.15		–
	Total	1126.38		–	
2	Sale of goods/contract revenue & services				
	Holding Company (Larsen & Toubro Limited)	1.22		–	
	Fellow subsidiaries, including:	102.51		–	
	Larsen & Toubro Atco Saudi LLC		78.53		–
	Larsen Toubro Arabia LLC		18.23		–
	Larsen & Toubro Electromech LLC		3.06		–
	L&T Modular Fabrication Yard LLC		1.65		–
	L&T Electrical and Automation FZE		0.10		–
	L&T Special Steels and Heavy Forgings Private Limited		0.53		–
	L&T Gulf Private Limited		0.14		–
	L&T Sargent & Lundy Limited		0.27		–
	Total	103.73		–	
3	Purchase/lease of fixed assets				
	Holding Company (Larsen & Toubro Limited)	11.24		–	
	Fellow subsidiaries, including:	16.74		–	
	L&T Shipbuilding Limited		16.11		–
	Larsen & Toubro International FZE		0.56		–
	EWAC Alloys Limited		0.07		–
	Total	27.98		–	
4	Sale of fixed assets				
	Fellow subsidiaries:	0.62		–	
	Larsen & Toubro Atco Saudi LLC		0.62		–
	Total	0.62		–	
5	Receiving of services from:				
	Holding Company (Larsen & Toubro Limited)	123.04		–	
	Fellow subsidiaries, including:	5.93		–	
	Larsen & Toubro Infotech Limited		5.15		–
	L&T Gulf Private Limited		0.63		–
	L&T Sargent & Lundy		0.10		–
	L&T Valdel Engineering Limited		0.04		–
	EWAC Alloys Limited		0.01		–
	Total	128.97		–	
6	Charges for deputation of employees to related parties				
	Fellow subsidiaries, including:	6.10		–	
	L&T Sapura Shipping Private Limited		5.34		–
	L&T Sapura Offshore Private Limited		0.76		–
	Total	6.10		–	

NOTES FORMING PART OF ACCOUNTS (CONTD.)

Sr. no.	Nature of transaction/relationship/major parties	2013-2014		2012-2013	
		Amount	Amounts for major parties	Amount	Amounts for major parties
7	Rent received, overheads recovered and miscellaneous income				
	Holding Company (Larsen & Toubro Limited)	36.29		–	
	Fellow subsidiaries, including:	41.44		–	
	Larsen & Toubro Atco Saudi LLC		20.39		–
	Larsen Toubro Arabia LLC		6.87		–
	L&T Modular Fabrication Yard LLC		6.84		–
	Larsen & Toubro Kuwait Construction General Contracting Company, WLL		3.20		–
	L&T Valdel Engineering Limited		2.04		–
	L&T Valves Limited		0.17		–
	L&T MHI Boilers Private Limited		0.07		–
	Larsen & Toubro Electromech LLC		-0.52		–
	L&T Gulf Private Limited		0.73		–
	L&T Sapura Offshore Private Limited		0.04		–
	L&T Sapura Shipping Private Limited		1.40		–
	Larsen & Toubro Saudi Arabia LLC		0.20		–
	L&T MHI Turbine Generators Private Limited		0.01		–
	Total	77.73		–	
8	Interest paid to				
	Holding Company (Larsen & Toubro Limited)	8.46		–	
	Total	8.46	–	–	–
9	Transfer of Business from (refer note Q(2))				
	Holding Company (Larsen & Toubro Limited)	1760.02		–	
	Total	1760.02		–	
10	Payment of salaries/ perquisites (Key management personnel)				
	Mr. U. Dasgupta	2.35		–	
	Mr. K. Ravindranath		1.57	–	
	Total	2.35	–	–	–

v. Amount due to/from related parties

(₹ Crore)

Sr. no.	Nature of transaction/relationship/major parties	As at 31.03.2014		As at 31.03.2013	
		Amount	Amounts for major parties	Amount	Amounts for major parties
1	Accounts payable (including acceptance & interest accrued)				
	Holding Company (Larsen & Toubro Limited)	278.49		–	
	Fellow subsidiaries, including:	156.47		–	
	Larsen & Toubro Electromech LLC		59.23		–
	L&T Modular Fabrication Yard LLC		39.05		–
	Larsen & Toubro Atco Saudi LLC		0.23		–
	L&T Valves Limited		11.34		–
	Larsen and Toubro (East Asia) SDN.BHD		0.59		–
	EWAC Alloys Limited		0.23		–
	L&T Special Steels and Heavy Forgings Private Limited		0.01		–
	L&T Geostructure LLP		1.11		–
	L&T Gulf Private Limited		5.15		–
	L&T FinCorp Limited		3.08		–
	Larsen and Toubro Infotech Limited		3.59		–
	Larsen and Toubro International FZE		0.62		–
	Larsen & Toubro Kuwait Construction General Contracting Company, WLL		1.35		–
	Larsen & Toubro Heavy Engineering LLC		6.96		–

NOTES FORMING PART OF ACCOUNTS (CONTD.)

Sr. no.	Nature of transaction/relationship/major parties	As at 31.03.2014		As at 31.03.2013	
		Amount	Amounts for major parties	Amount	Amounts for major parties
	L&T Shipbuilding Limited		9.05		–
	L&T Sapura Offshore Private Limited		0.55		–
	L&T Sapura Shipping Private Limited		3.40		–
	L&T Sargent & Lundy Limited		0.45		–
	PT TAMCO Indonesia		0.12		–
	TAMCO Switchgear (Malaysia) SDN BHD		0.23		–
	L&T Valdel Engineering Limited		10.13		–
	Total	434.96		–	
2	Loans & advances recoverable				
	Holding Company (Larsen & Toubro Limited)	121.91		–	
	Fellow subsidiaries, including:	167.17		–	
	Larsen Toubro Arabia LLC		29.94		–
	Larsen & Toubro Atco Saudi LLC		28.07		–
	L&T Valves Limited		3.01		–
	L&T MHI Boilers Private Limited		0.13		–
	Larsen & Toubro Electromech LLC		15.79		–
	LT Electrical and Automation FZE		0.33		–
	L&T Special Steels and Heavy Forgings Private Limited		0.12		–
	L&T Gulf Private Limited		1.05		–
	L&T Howden Private Limited		0.01		–
	L&T Hydrocarbon International LLC		0.15		–
	Larsen & Toubro Heavy Engineering LLC		19.50		–
	Larsen & Toubro Kuwait Construction General Contracting Company, WLL		5.58		–
	L&T Shipbuilding Limited		20.08		–
	L&T Modular Fabrication Yard LLC		15.81		–
	L&T Sapura Offshore Pvt Ltd.		11.88		–
	L&T Sapura Shipping Pvt. Ltd.		12.88		–
	L&T Valdel Engineering Limited		2.45		–
	Larsen & Toubro Infotech Limited		0.04		–
	L&T Sargent & Lundy Limited		0.12		–
	Larsen & Toubro Saudi Arabia LLC		0.20		–
	L&T MHI Turbine Generators Private Limited		0.02		–
	Total	289.08		–	
3	Unsecured loans (including lease finance)				
	Holding Company (Larsen & Toubro Limited)	599.70		–	
	Total	599.70		–	

Q(8) Disclosure in respect of leases pursuant to Accounting Standard (AS 19) “Leases”

Where the Company is a lessee:

a) Operating leases:

- i. The Company has taken various commercial premises and plant and equipment under cancellable operating leases. These lease agreements are normally renewed on expiry.
- ii. [a] The Company has taken certain assets like cars, technology assets, etc. on non-cancellable operating leases, the future minimum lease payments in respect of which are as follows:

(₹ Crore)

Particulars		Minimum lease payments	
		As at 31-3-2014	As at 31-3-2013
1.	Payable not later than 1 year	1.23	–
2.	Payable later than 1 year and not later than 5 years	0.79	–
3.	Payable later than 5 years	–	–
	Total	2.02	–

NOTES FORMING PART OF ACCOUNTS (CONTD.)

[b] The lease agreements provide for an option to the Company to renew the lease period at the end of the non-cancellable period. There are no exceptional/restrictive covenants in the lease agreements.

iii. Lease rental expense in respect of operating leases: ₹ 7.29 crore (*previous year: Nil*).

Q(9) Basic and diluted earnings per share [EPS] computed in accordance with pursuant to Accounting Standard (AS) 20 "Earnings per Share".

		2013-2014	2012-2013
Basic			
Profit after tax as per accounts (₹ crore)		105.73	–
Less: Preference dividend and dividend distribution tax		8.49	–
Profit after tax as per accounts (₹ crore)	A	97.24	–
Weighted average number of shares outstanding	B	1,00,00,50,000	–
Basic EPS (₹)	A/B	0.97	–
Diluted			
Profit after tax as per accounts (₹ crore)		105.73	–
Less: Preference dividend and dividend distribution tax		8.49	–
Profit after tax as per accounts (₹ crore)	A	97.24	–
Weighted average number of shares outstanding	B	1,00,00,50,000	–
Add: Weighted average number of potential equity shares on account of employee stock options	C	–	–
Weighted average number of shares outstanding for diluted EPS	D= B+C	1,00,00,50,000	–
Diluted EPS (₹)	A/D	0.97	–
Face value per share (₹)		10	–

The share capital was infused by the holding company on February 7, 2014 after the scheme of arrangement was approved by the court [refer note Q(2)]. Since the HC Undertaking was transferred with effect from April 1, 2013, the number of shares is considered for the full year and not proportionately from the date of infusion.

Q(10) Major components of deferred tax liabilities and deferred tax assets: pursuant to Accounting Standard (AS 22) "Accounting for Taxes on Income"

(₹ Crore)

Particulars	Deferred tax liabilities/ (assets) as at 31.03.2013	Deferred tax liabilities/ (assets) On acquisition of HC Undertaking	Charge/ (credit) to Statement of Profit and Loss	Charge/ (credit) to Hedging reserve	Deferred tax liabilities/ (assets) as at 31.03.2014
Deferred tax liabilities:					
Difference between book and tax depreciation	–	52.33	9.81	–	62.14
Disputed statutory liabilities paid and claimed as deduction for tax purposes but not debited to the Statement of Profit and Loss	–	–	1.60	–	1.60
Total	–	52.33	11.40	–	63.74
Deferred tax (assets):					
Provision for doubtful debts and advances debited to the Statement of Profit and Loss	–	(8.06)	1.76	–	(6.30)
Loss on derivative transactions to be claimed for tax purposes in the year of transfer to the Statement of Profit and Loss	–	(76.35)	–	16.27	(60.07)
Unpaid statutory liabilities/provision for compensated absences debited to the Statement of Profit and Loss	–	(15.28)	0.94	–	(14.34)
Total	–	(99.68)	2.70	16.27	(80.71)
Net deferred tax liability/(assets)	–	(47.35)	14.10	16.27	(16.97)
<i>Previous year</i>	–	–	–	–	–

NOTES FORMING PART OF ACCOUNTS (CONTD.)

Q(11) Disclosures in respect of joint ventures pursuant to Accounting Standard (AS 27) "Financial Reporting of Interests in Joint Ventures"

Sr no.	Joint venture / consortium with	Description of interest / (description of job)	Country of residence
1	Toyo Engineering Company	Jointly controlled operations (Execution of naphtha cracker associated unit for IOCL, Panipat)	India
2	Pipavav Defence & Offshore Engineering Company	Jointly controlled operations [Execution of Sagar Pragati Conversion Project (MOPU) for ONGC]	India

Note: Contingent liabilities, if any, incurred in relation to interests in joint ventures as at March 31, 2014 ₹ Nil (*previous year ₹ Nil*); share in contingent liabilities incurred jointly with other ventures as at March 31, 2014 ₹ Nil (*previous year ₹ Nil*); contingent liabilities in respect of liabilities of other venturers of joint ventures as at March 31, 2014 ₹ Nil (*previous year ₹ Nil*) and capital commitments, if any, incurred in relation to interests in joint ventures as at March 31, 2014 ₹ Nil (*previous year ₹ Nil*).

Q(12) Disclosures required by pursuant to Accounting Standard (AS) 29 "Provisions, Contingent Liabilities and Contingent Assets":

a) Movement in provisions:

(₹ Crore)

Sr. no	Particulars	Class of provisions			Total
		Expected tax liability in respect of indirect taxes	Litigation related obligations	Contractual rectification cost-construction contracts	
1	Balance as at 1.4.2013	–	–	–	–
2	Addition on acquisition of HC Undertaking	14.45	0.84	16.20	31.49
3	Additional provision during the year	0.23	–	47.76	47.99
4	Provision used during the year	–	–	–	–
5	Provision reversed during 2013 - 2014	0.36	0.05	41.81	42.22
6	Balance as at 31.3.2014 (5=1+2+3-4-5)	14.31	0.79	22.15	37.26

b) Nature of provisions:

- Expected tax liability in respect of indirect taxes represents mainly the differential sales tax liability on account of non-collection of declaration forms for the period prior to 5 years.
- Provision for litigation related obligations represents liabilities that are expected to materialise in respect of matters in appeal.
- Contractual rectification cost represents the estimated cost the Company is likely to incur during defect liability period as per the contract obligations in respect of completed construction contracts accounted under AS 7 (Revised) "Construction Contracts".

c) Disclosure in respect of contingent liabilities is given as part of Note no. (l) to the Balance Sheet.

Q(13) In line with the Company's risk management policy, the various financial risks are hedged by using a combination of forward contracts, swaps and other derivative contracts, besides the natural hedges.

(a) The particulars of derivative contracts entered into for hedging purposes outstanding as at March 31, 2014 are as under:

(₹ Crore)

Category of derivative instruments	Amount of exposures hedged	
	As at 31.03.2014	As at 31.03.2013
For hedging foreign currency risks		
a) Forward contracts for receivables including firm commitments and highly probable forecasted transactions	1591.88	–
b) Forward contracts for payables including firm commitments and highly probable forecasted transactions	1070.22	–

NOTES FORMING PART OF ACCOUNTS (CONTD.)

(b) Un-hedged foreign currency exposures as at March 31, 2014 are as under:

(₹ Crore)

Un-hedged foreign currency exposures		As at 31.03.2014	As at 31.03.2013
i	Receivables, including firm commitments and highly probable forecasted transactions	5937.17	–
ii	Payables, including firm commitments and highly probable forecasted transactions	5757.53	–

Q(14) Auditors' remuneration (excluding service tax) and expenses charged to the accounts:

(₹ Crore)

Particulars	2013-14	2012-13
As auditor	0.09	–
For Taxation matters	–	–
Certification work	0.15	–
For Other services	0.00	–
For reimbursement of expenses	0.01	–

Q(15) Value of imports (on C.I.F. basis):

(₹ Crore)

Particulars	2013-14	2012-13
Raw materials	60.25	–
Components and spare parts	224.54	–
Capital goods	1.38	–

Q(16) Expenditure in foreign currency:

(₹ Crore)

Particulars	2013-14	2012-13
On overseas contracts	4803.00	–
Professional/consultation fees	12.99	–
Commission brokerage and discount charges	2.12	–
Bank and finance charges	0.30	–
Logistic charges	110.66	–
Sales marketing and advertising expenses	1.28	–
Membership and subscription charges	0.36	–
Insurance charges	6.47	–
Telecommunication expenses	0.03	–
Other matters	984.12	–

Q(17) Earnings in foreign exchange:

(₹ Crore)

Particulars	2013-14	2012-13
Export of goods	1.65	–
Construction and project related activities	6361.04	–
Export of services	46.57	–
Other receipts	21.84	–

Q(18) The Company has amounts due to suppliers under The Micro, Small and Medium Enterprises Development Act, 2006, [MSMED Act] as at March 31, 2014. The disclosure pursuant to the said Act is as under:

(₹ Crore)

Particulars	2013-14	2012-13
Principal amount due to suppliers under MSMED Act, 2006	15.64	–
Interest accrued, due to suppliers under MSMED Act on the above amount, and unpaid		
Payment made to suppliers (other than interest) beyond the appointed day during the year	0.13	–
Interest paid to suppliers under MSMED Act (other than Section 16)	–	–
Interest paid to suppliers under MSMED Act (Section 16)	0.00	–
Interest due and payable towards suppliers under MSMED Act for payments already made	–	–
Interest accrued and remaining unpaid at the end of the year to suppliers under MSMED Act	0.00	–

NOTES FORMING PART OF ACCOUNTS (CONTD.)

Q(19) Details of sales, raw materials and components consumed, manufacturing work-in-progress and purchase of stock in trade:

a) Sales:

Class of goods	2013-14	2012-13
	(₹ Crore)	(₹ Crore)
(i) Manufacturing and trading activity:		
Plant and equipment and modules for Chemical, Oil and Gas industries	16.00	–
Others	3.07	–
Total	19.07	–
(ii) Construction and project related activity:		
Plant and equipment and modules for Chemical, Oil and Gas industries	3,953.29	–
Chemical plant and machinery	3,027.27	–
Others	1,616.98	–
Total	8,597.53	–
(iii) Engineering and service fees	33.79	–
Total Sales & service (i) to (iii) -[Note K]	8,650.39	–

b) Raw materials and components consumed:

i) Class of goods :

Class of goods	2013-14	2012-13
	(₹ Crore)	(₹ Crore)
Equipment, components for oil & gas industries, etc	1,263.55	–
Chemical plant components	1495.85	–
Total [Note M]	2759.40	–

ii) Classification of goods:

Classification of goods	2013-14		2012-13	
	% to total consumption	(₹ Crore)	% to total consumption	(₹ Crore)
Imported (including through canalising agencies)	79.20	2185.40	–	–
Indigenous	20.80	574.00	–	–
Total	100.00	2759.40	–	–

c) Details of Work-in- progress (Note H (I)):

Class of goods	2013-14	2012-13
	(₹ Crore)	(₹ Crore)
Equipment, components for oil & gas industries, etc	1.19	–
Total [Note H(I)]	1.19	–

As per our report attached

For and on behalf of the Board

SHARP & TANNAN

Chartered Accountants

Firm's Registration No.109982W

by the hand of

FIRDOSH D. BUCHIA

Partner

Membership No.38332

K. VENKATARAMANAN

Managing Director

P. S. KAPOOR

Company Secretary & Chief
Financial Officer

U. DASGUPTA

Director

K. RAVINDRANATH

Director

Place : Mumbai
Date : April 29, 2014

Place : Mumbai
Date : April 29, 2014

LANDMARK PROJECTS

The track record is an emphatic statement of capability. The Company's extensive track record demonstrates the depth and variety of its capability spectrum, and its proven ability to handle jobs of scale and complexity in multiple geographies. Following are some of the Landmark Projects executed by the erstwhile Hydrocarbon business of Larsen & Toubro Limited, now known as L&T Hydrocarbon Engineering Limited.

- **MHN Complex for ONGC- One of Biggest Projects in Indian Waters**

ONGC – India's giant public sector oil & gas corporation awarded one of its biggest ever contracts to the Company for the Mumbai High North (MHN) Process Platform & Living Quarter Project and MHN Process Gas Compressor Modules Project.

The USD 1.1 billion complex comprised of a process platform with three Process Gas Compression Modules, a living quarter platform, two flare platforms and four interconnecting bridges. The project involved a total 80,000 MT of fabrication.



MHN Process Platform & Living Quarters Project in Mumbai High North Field

MHN Project set multiple benchmarks for Indian offshore projects:

- Largest jacket (13,500 MT)
- Heaviest load out (4,521 MT)
- Heaviest lift at offshore (4,000 MT)
- Longest bridge on India's West Coast (137 m)
- Largest offshore living quarters module (150men)
- Heaviest topside (operating weight 27,000 MT).



Sail-away of jacket for Asia's largest process platform (13,500 MT, 8-legged launch-type with 23 pre-installed risers) from Modular Fabrication Facility at Sohar in Oman

- **Zawtika Development Project, for PTTEPI, Thailand**

South East Asia is among the Company's focus geographies. For PTT Exploration and Production International, Thailand, the Company executed a project for the Zawtika Development Project Phase -1A.

The Company demonstrated its ability to meet the challenges of the high seismic zone of the Gulf of Mottama, 300 km south of Yangon. This involved Rare Intensity Earthquake (RIE) analysis involving non-linear mathematical modeling using data for 2000 years return period, materials & corrosion testing of highest standards, complex safety studies like CFD (Computational Fluid Dynamics) explosion modeling, concept of wrap plates and related Finite Element Analysis.

The project scope included engineering, procurement, fabrication, installation, pre-commissioning and offshore hookup of 3 Wellhead Platforms and laying of 21 km of intra-field sea lines. The project involved over 37,000 MT of fabrication. Toppers were transported on self-propelled vessels, and 24 single-piece skirt piles with an overhang of 27m were transported using a special cradle arrangement.



Zawtika Wellhead Platform installed in Gulf of Mottama in Myanmar

- **Yetagun North Development Project, Myanmar**



Topside & Vent Boom being transported to Yetagun field (inset: Yetagun D Platform installed Offshore)

The Company secured a contract from PETRONAS Carigali Myanmar (Hong Kong) Limited in January 2013 for Yetagun North (Phase-V Development).

Scope involved Engineering, Procurement, Construction, Installation and Commissioning of a new 4-legged wellhead platform (YET-D) at 108 m water depth, a new 10" x 11.2 km pipeline from YET-D to existing Yetagun main platform (YET-C) and host tie-in works and modification of YET-C platform.

The Company carried out over 5,500MT of fabrication for YET-D platform. Host Tie-in works involved 80 MT of deck extension and installation of slug catcher and riser guard.

The Company's capabilities in detail engineering and global procurement enabled the project team to overcome multiple challenges and meet accelerated schedules including delivery of the project structures in a record 12 months. Currently, the project is in advanced stage of hook-up and commissioning.

- **ADMA-OPCO Project, Abu Dhabi**

The Company was awarded an EPCI contract in July 2011, by Abu Dhabi Marine Operating Company (ADMA-OPCO), a subsidiary of ADNOC and a major producer of Oil & Gas for the UAE, for Phase-1 of Nasr & Umm Lulu Field Development Projects.

Located at 150 km northwest Abu Dhabi, UAE, the projects comprise four wellhead towers and a manifold tower platform, interconnecting bridges, 103 km rigid subsea pipeline and 78 km subsea fibre optic cable.

The Company's demonstrated its flexibility in coping with the dynamics of a large project. Multiple design changes were successfully implemented concurrently with project execution. The project also saw multi-



(Sail away of Wellhead Platform 4 & 6 from the Modular Fabrication Facility at Sohar, Oman)

locational coordination with the design team based in Bangalore, the fabrication facilities at Sohar, Oman and the installation & hook-up at Abu Dhabi.

The project is currently in an advanced stage of completion.

- **World's Longest Heated Pipeline & Process Terminal - Cairn Energy**



Mangala Process Terminal at Barmer in Rajasthan

The Company executed India's largest onshore oil terminal Mangala Process Terminal at Barmer (North Rajasthan) for Cairn Energy. The project, spread over three distinct locations: Mangala Processing Terminal (MPT), Rageshwari Gas Terminal (RGT) and Thumbli (NR1) Water Field, was interconnected through pipelines.

The Company's capabilities for mid and downstream plant construction was demonstrated through comprehensive development of infrastructure facilities, detailed engineering & construction of all civil and electromechanical works, offsite infrastructure facilities, supply, installation & commissioning of the 33 kVA high voltage power line system and telecom network.

The scope included setting up 18 wells and facilities for 100,000 bpd crude production at MPT, four well-pads and facilities to meet gas requirement at RGT, facilities to meet the water requirement at NR1, 78km of inter-field oil pipeline at MPT, 6 km of inter-field gas pipeline at RGT, 91 km of gas pipeline from RGT to MPT, 22 km of water pipeline from NR1 to MPT and 33 kV of overhead line.

The Company also built the world's longest, continuously heated and Polyurethane Foam (PUF) insulated crude oil pipeline to evacuate the waxy oil up to 320,000 BOPD. The 665 km, 24" crude oil pipeline from Barmer to Salaya in Gujarat, was extended to Bhogat further south in Gujarat. An 8" gas pipeline from the Rageshwari Gas field as well as fibre optic network was also laid alongside the oil pipeline. 32 heating stations en route ensured that the waxy crude did not solidify. Six pig trap stations were also installed.



World's Longest Heated and PUF-Insulated Waxy Crude Oil Pipeline from Barmer (Rajasthan) to Bhogat (Gujarat)

The carbon steel crude oil pipeline incorporates several special features. Designed for a 93 bar pressure and 90 Deg C temperature, it is insulated with three layers of Polyurethane Foam (PUF) and encapsulated in a High Density Polyethylene outer sheath.

Project highlights included the successful execution of 11 concurrent pipeline spreads, covering 2 states, 54 bored crossings of highways/ railways and 24 of major river crossing and over 700 minor crossings.

- **World's Largest Refinery Complex- Reliance Industries, Jamnagar**



Construction of World's Largest Refinery Complex at Jamnagar

The Company played a critical role in building Phase 2 of the world's largest refinery complex at Jamnagar for Reliance Industries Limited, with crude oil processing facility of 5.8 million BOPD.

The scope of work involved erection of FCC Unit, Clean Fuel Package, two units of Crude & Vacuum Distillation Units, Alkylation Unit, Coker Unit, Offsites & Utilities along with Main Control Center / Plant Operations Building and other buildings.

The numbers indicate the scale of the project: 4.6 Lakh m³ concreting, 28,000 MT structural fabrication, 51,000 MT of structural erection, 59 Lakh inch meter of piping erection, 25,000 MT of equipment erection, 4,300 km of electrical cable laying and 2,311 km of instrument cable laying.

Earlier the Company had contributed in a major way towards building Phase-1 of the refinery with a capacity of 6.6 million BOPD

- **Mangalore Aromatic Complex Project for OMPL**

The Company bagged the Mangalore Aromatic Complex Project of ONGC Mangalore Petrochemicals Limited (OMPL) in March 2010, against global competition. When commissioned, the plant would produce 905,000 MTPA of Paraxylene & 273,000 MTPA of Benzene, using UOP Process Technology.

This complex has nine process units, namely Naphtha Hydrotreating Unit, Continuous Catalytic Regeneration Unit, Platforming Unit, Parex Unit, Isomar Unit, Xylene Fractionation Unit, Shell Sulpholane Unit, Tatoray Unit and Benzene & Toluene Fractionation Unit.

Characterized by large work volumes, heavy crange requirement and a peak manpower of more than 6000, the OMPL project affirmed the



(Mangalore Aromatic Complex having Capacity of 905,200 MTPA of Paraxylene and 273,200 MTPA of Benzene)

Company's ability to execute mega sized projects to international benchmarks. The project includes over 100,000 m³ of concrete work; more than 10,000 MT of Structural Steel; 450 + equipment including six super over-dimensional consignments (SODC); 150 + pumps & 10 compressors, more than 200,000 inch-meter of underground piping; 1,000,000+ inch-meter above ground piping; 2000+ km of cabling; and 10 heater packages with tonnage in excess of 8000 MT.

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