ESSAR

Essar Steel Limited

24 CARAT STEEL

Twenty Third Annual Report
1998-99

ESSAR 24 CARAT STEEL

Board of Directors

Chairman	Shashi Ruia
Vice-Chairman	Ravi Ruia
Managing Director	Jatinder Mehra
Directors	Prashant Ruia S V Venkatesan S N Puri I C Jain D D Udeshi Sanjeev Shriya
Nominees	T M Nagarajan, IDBI *Sanjivi Sundar, UTI* Chanda Kochhar, ICICI
Company Secretary	A Kumaresan (upto June 30, 1999)
Registered Office	Post: Hazira Pin: 394 270 Dist. Surat Gujarat Tel. 0261-626260 Fax:0261-626224/626462
Corporate Office	Essar House 11 Keshavrao Khadye Marg Mahalaxmi Mumbai 400 034

BANKERS	State Bank of India Punjab National Bank Bank of India Allahabad Bank State Bank of Patiala State Bank of Mysore Indian Bank State Bank of Saurashtra State Bank of Indore Sakura Bank
AUDITORS	M/s. Lovelock & Lewes Chartered Accountants 1104, Raheja Chambers Free Press Road Nariman Point Mumbai 400 021
INTERNAL AUDITORS	M/s. B.P. Jain & Co. Chartered Accountants A-16, Everest, Tardeo Road Tardeo, Mumbai 400 034
SOLICITORS	M/s. Crawford Bayley & Co. State Bank Buildings NGN Vaidya Marg Mumbai 400 023
TRANSFER AGENTS	Data Software Research Co. Pvt. Ltd. Sree Sovereign Complex No.22, 4th Cross Street Trustpuram, Kodambakkam Chennai 600 024 Tel:044-4834487/3738 Fax:044-4834636 Email : dscrcmd @ md3.vsnl.net. in

Contents

Board of Directors 2
Chairman's Letter to the Shareholders 3
Review Fy98-99 4-5
Highlights Fy98-99 6
Notice 7-8
Directors' Report 9-10
Auditors' Report 11
Balance Sheet 12
Profit and Loss Account 13
Schedules 14-28
Balance Sheet Abstract 29-30
Cash Flow Statement 31
Section 212 Statement 32
Annual Report of Subsidiary
Essar Minerals Ltd. 33-38

Visit us at our website http://www.essar.com

Please send in your e-mail address to : webmaster @ essar.com to keep you informed about the progress of the Company.

Chairman's letter to the shareholders

Dear Shareholder,

Steel tempered by fire emerges stronger and so has Essar Steel. Today Essar Steel with a 2 million tonne steel plant at Hazira, Gujarat, is a globally competitive producer of high quality steel. It is also India's largest exporter of flat steel.

This would not have been possible without the unstinted support of each and every partner of Essar Steel, including investors, lenders, employees and trade partners. You have played an important role in our success and I wish to acknowledge your contribution and thank you for your continued commitment.

At the AGM last year, I had said that the "world was crashing around us". This statement created a lot of apprehension in the media with regard to the company's performance. I wish to clarify that my words were not a reflection on the company but rather, were meant to encompass the overall reduction of global steel prices – a factor that affected all the players in the market. When Essar Steel plant was commissioned, steel prices globally touched an all time low of $180 pmt from a record high of $400 pmt in a short span of just 18 months. The dumping of steel by Russia, CIS and other countries, further compounded the domestic steel industry's problems. This was largely due to the Government's inability to intervene well in time to enforce anti-dumping measures. The overall glut in the domestic market and the time taken by the Government to react to anti-dumping measures caused much of a delay, by which time it was too late. By then, the domestic prices had further bottomed out and the helpless steel industry continued to bleed profusely for every metric tonne it manufactured.

Keeping in mind the situation in the industry, your manufacturing plant and operations need to be congratulated for having kept up the continuous operations which helped reduce our fixed costs. The loss making performance FY98-99 should not be seen in isolation. During this period, we have managed to cover most of the interest cost and have fallen behind only in terms of depreciation.

What has helped us grow stronger even in the face of adversities, is our sense of commitment and faith in our operational efficiencies. Your company takes pride in being ranked amongst 10-15 percentile, lowest cost steel producers in the world.

Various technological improvements have led to both reduction in costs and have improved the efficiency and productivity of your company. The company is now focussing on the following:

- Significant reduction in debt-equity gearing
- Keeping Debt-EBIDTA range of 4:1
- Significant reduction in interest cost
- Increasing total production from 2 million tpa to 2.4 million tpa
- Empowerment in decision making
- Greater focus on company's intangible assets

Looking ahead:

Massive on-going financial re-structuring and technical up-gradation and introduction of steel branding for the first time in the country, is bound to increase shareholders value over a period of time, the impact of which may not be fully reflected in this year's results.

The worst seems to be over in the steel industry. Metal Bulletin the leading international reference source, suggests that the price of steel have bottomed out and are expected to touch US$450 pmt by the end of 2000. In the last quarter itself, the price of steel have risen by US$50-60 pmt. Currently Essar Steel has booked export orders at $305 (C&F) pmt. Should this trend continue, this will have a significant impact on Essar Steel's financial performance. Significantly, this is only the beginning. Given Essar Steel's strong fundamentals, the Essar Group is committed to make Steel business a viable long term investment.

S.N. Ruia

REVIEW 1998-99

INDUSTRY PERFORMANCE 1998-99

The steel industry has been under the worst ever cyclical downturn over the past two years with prices dropping to 20-year lows. In fact during FY '99, prices have dropped from a peak level of US$370/MT to unprecedented lows of US$180/MT. This has severely eroded the sales realisations of all steel producers both international and domestic. Margins were under severe pressure and the situation was exacerbated by dumping from CIS countries.

The domestic demand remained stagnant and the scenario was aggravated by additional capacities coming into play increasing *supply pressures, which resulted in a drastic decline in domestic* realisations. The impact of the fixation of floor price and anti-dumping measures announced towards the end of the third quarter was felt marginally in the last quarter of FY99.

ESSAR STEEL'S PERFORMANCE

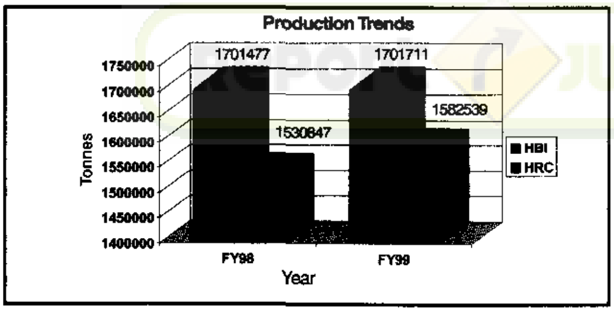
Production

Hot Briquetted Iron (HBI)

The HBI plant operated at high capacity utilisation and was able to service the entire requirement of the steel plant. The HBI plant achieved 97% Hot Briquetted Iron (HBI) utilisation with a production of 1,701,711 MT for FY99, compared to 1,701,477 MT in the previous year. The production of HBI was impacted by the non availability of natural gas. The company has also initiated various measures to improve on the production and the quality of HBI in the coming year and also reduce the operating costs.

Hot Rolled Steel Coils (HRC)

The HRC plant produced 1,582,539 MT of Hot Rolled Coils (HRC) for FY99, compared to 1,530,847MT in the previous year,



recording a growth of 3.0%. Capacity utilisation thus improved from 77% to 79%. It was also established by international consultants that many of the input consumption and yield factors achieved compare favourably with world standards.

Service Centre Facilities

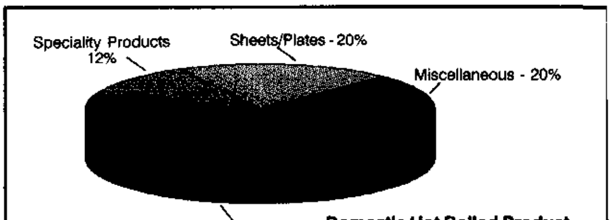
During the year, the company commissioned its hot skin pass mill which has enabled the company to cater to the thin gauge and wider width segment. This has helped the company in providing a better service to the customers and also improve the realisation. The company is only one in India to operate a 1.2 mr tonnes per annum hot skin pass facility.

MARKETING

Domestic Market

The company's position in the market continued to be bolsterec by the capability of its equipment in terms of the product chemistry and quality, wide HSM, skin pass mill, slitting and cut-to-length lines. Its proximity to major demand centers also aided the company. The ability to offer a better quality product adhering tc strict delivery systems and improving customer relationship *helped the company maintain its market share in the retail market.*

In the domestic market, the company plans to appoint about 20C

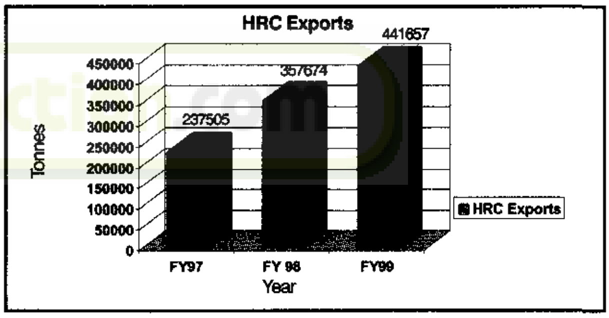


Domestic Hot Rolled Product Mix during FY '99

exclusive retailers across the country in an attempt to penetrate the hitherto unexplored markets and widen distribution & customer base.

Export Market

The company has also been able to derive maximum benefit

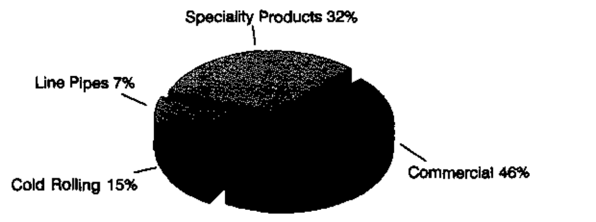


from its port based location, good logistics for export and innovative export contracts with established and reputed traders. The company continued to maintain a balanced geographical focus including a strategy of minimum sustained presence in all markets over the entire globe. The export market has remained a foreign exchange source plus safety valve for domestic price support. The company's product mix advantages offered an additional cushion in terms of domestic price realizations.

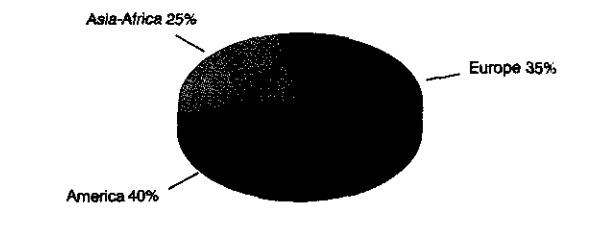
The total HRC sales volumes aggregated 1,449,060 MT for FY99, compared to 1,495,497 MT in the previous year. Export sales volumes registered a growth of 23% to 441,657 MT

accompanied by domestic sales of 1,007,403 MT in FY99 compared to 357,674 MT exports and 1,137,823 MT of domestic sales in the previous year.

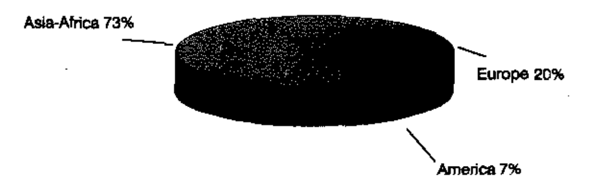
Export Grade-wise Distribution FY '99



Region-wise Exports during FY '99



Region-wise Exports for FY '98



FINANCE

Total sales for FY99 aggregated Rs2,262.91 crores accompanied with a total income of Rs 2,452.12 crores as compared to total sales of Rs 2,519.47 crores and a total income of Rs 2,652.45 crores in the previous year. Realisation drop due to the sluggish market conditions had an adverse impact on the total sales turnover to the tune of Rs260 crores. Coupled with the statutory increases in costs, mainly raw material and fuel impacted margins of the company and EStL's EBIDTA declined to Rs374.06 crores in FY99. After providing for interest of Rs502.40 crores, depreciation/amortisation and deferred revenue expenses of Rs368.11 crores, (higher by about Rs. 43 crores), the company incurred a loss of Rs 496.45 crores for FY99.

FUTURE OUTLOOK

The international market seems to have bottomed out with indications of some price improvement in the first quarter. It is expected that this would be supported by some further improvements in the subsequent quarters. The prices are expected to firm up to the tune of US$40-50/MT in the first two quarters from the bottom level of US$180/MT. While this is not sufficient, margins will certainly look up in the current fiscal.

However, in so far as the domestic market is concerned, FY2000 is likely to be a difficult year given the sluggish domestic demand and the incremental supplies coming in from new producers. This presupposes that the measures announced by the government are implemented and infrastructure development activities are taken up expeditiously, thus fuelling steel demand and prices.

FUTURE PLANS

With a view to strengthen the balance sheet and provide a sharper focus to the business, the company has initiated various steps including technological upgradation, cost reduction, branding of steel and capital restructuring. The company has initiated an aggressive programme for further reduction of operating costs and augmenting capacity to 2.4 mtpa over the next three years without any significant capital investments. Essar Steel's debt profile is not in consonance with international norms, in terms of its maturity profile. The company is addressing these issues and measures are on to lengthen the maturity profile and improve the cashflow of the company. The "24 Carat Steel": programme is aimed at increasing our domestic market share and increase realisation per tonne. The programme is also expected to support our efforts to widen the distribution of our products across the country and penetrate the rural markets through the "Retail Network Scheme". The management is confident that these measures along with the upturn in the steel cycle will benefit the company.

HIGHLIGHTS FY99

PRODUCTION

Hot Briquetted Iron (HBI)

- Production up at 1,701,711 MT in FY99 as compared to 1,701,477 MT in FY98
- Operated at 97% capacity utilization during the year
- Measures to improve productivity and cost reduction programme initiated during the year

Flat Products

- Production of Hot Rolled Coils (HRC) up by 3% from 1,530,847 MT in the previous year to 1,582,539 MT
- Operated at 79% capacity during the year as compared to 77% during the previous year
- Hot Skin Pass Mill commissioned during the year – Only steel producer in India to offer skin passed coils.
- Measures initiated to reduce costs and improve productivity and capacity utilization

MARKETING

- HRC sales at 1,449,060 MT in FY99 as compared to 1,495,497 MT in FY98
- Export HRC sales up by 23% from 357,674 MT to 441,657 MT
- Major supplier of HRC to the cold rolling / galvanising industry and line pipe grade steel in the domestic market
- Quality supplier of customized high-value-added products
- Maintained its premier position as the largest Indian exporter of HR Flat products
- Sustained presence in all regions in the export market
- First company to brand hot rolled steel – "24 Carat Steel" in the domestic market.

FINANCE

- Drop in the realisations due to sluggish market conditions, alongwith the increase in statutory costs, impacted the performance of the company.

FUTURE PLANS

- Various steps initiated including technological upgradation, cost reduction and capital restructuring with a view to strengthen the balance sheet and provide a sharper focus to the business.

NOTICE

NOTICE is hereby given that the Twentythird Annual General Meeting of the Members of **ESSAR STEEL LIMITED** will be held at the Registered Office of the Company at Post Hazira, Pin 394 270, Dist. Surat, on Saturday, September 25, 1999 at 2.30 p.m. to transact with or without modifications, as may be permissible, the following Business as:

ORDINARY BUSINESS:

1. To receive, consider and adopt the Audited Balance Sheet as at March 31, 1999 and the Profit and Loss Account for the year ended on that date and the Reports of the Directors and Auditors thereon.
2. To appoint a Director in the place of **Mr. D.D.Udeshi**, who retires by rotation as a Director and, being eligible, offers himself for reappointment.
3. To appoint a Director in the place of **Mr. Sanjeev Shriya**, who retires by rotation as a Director and, being eligible, offers himself for reappointment.
4. To appoint a Director in the place of **Mr. Prashant S. Rula**, who retires by rotation as a Director and, being eligible, offers himself for reappointment.
5. To appoint Auditors of the Company and to fix their remuneration.

SPECIAL BUSINESS:

6. To consider and, if thought fit, to pass with or without modification(s), the following as an **Ordinary Resolution**:-

   "**RESOLVED THAT** pursuant to Section 81 and other applicable provisions, if any, of the Companies Act, 1956 and subject to the approval of the Government of India (GOI), Securities and Exchange Board of India (SEBI), Reserve Bank of India (RBI), if any, and subject to the consents, permissions and sanctions as may be necessary of other appropriate authorities, institutions or bodies, consent, authority, approval of the Company be and it is hereby accorded to the Board of Directors of the Company (hereinafter called "The Board") to issue/offer equity shares, for an amount not exceeding **Rs. 350 crores**, with or without Warrants, on rights basis, in such ratio and at such price as may be determined by the Board, on a record date to be fixed by the Board, to the existing shareholders of the Company with a right of renunciation of entitlement on such terms and conditions as may be decided by the Board.

   RESOLVED FURTHER THAT such of these shares and/or warrants or any combination thereof, as are not subscribed, may be disposed of by the Board, in its absolute discretion in such manner as it may deem fit.

   RESOLVED FURTHER THAT for the purposes of giving effect to this resolution, the Board be and it is hereby authorised to do all acts, deeds, matters and things as it may, in its absolute discretion, deem necessary or to settle any question, difficulty or doubt that may arise in regard to the offer, issue, allotment and utilisation of the issue proceeds as it may deem fit."

7. To consider and, if thought fit, to pass with or without modification(s), as an **Ordinary Resolution** the following:-

   "**RESOLVED THAT** the authorised share capital of the Company be and it is hereby increased **from Rs.600 crores** (Rupees Six hundred crores only) divided into

   - 50,00,00,000 (Fifty crores) Equity Shares of Rs.10/- (Rupees Ten only) each and
   - 1,00,00,000 (One crore) Redeemable Cumulative Preference Shares of Rs.100/- (Rupees One hundred only) each

   to Rs.1,600 crores (Rupees One thousand Six hundred crores only) divided into

   - 150,00,00,000 (One hundred Fifty crores) Equity Shares of Rs.10/- (Rupees Ten only) each and
   - 1,00,00,000 (One crore) Redeemable Cumulative Preference Shares of Rs.100/- (Rupees One hundred only) each

   and consequently the existing clause V of the Memorandum of Association of the Company be and it is hereby altered by deleting the same and substituting, in its place and stead thereof, the following new clause:

V. "The Authorised Share Capital of the Company is Rs. 1600.00 Crores (Rupees One Thousand Six Hundred Crores only) divided into 150,00,00,000 (One Hundred Fifty Crores) Equity Shares of Rs.10/- (Rupees Ten only) each and 1,00,00,000 (One Crore) Redeemable Cumulative Preference Shares of Rs.100/- (Rupees One Hundred only) each with power to increase or reduce the same in accordance with the provisions of the Companies Act, 1956."

NOTES:

1. The Explanatory Statement pursuant to Section 173 of the Companies Act, 1956 relating to the Special Business under Item Nos. 6 & 7 is annexed herewith.
2. **A MEMBER ENTITLED TO ATTEND AND VOTE AT THE MEETING IS ENTITLED TO APPOINT A PROXY AND VOTE INSTEAD OF HIMSELF ON A POLL ONLY AND THE PROXY NEED NOT BE A MEMBER OF THE COMPANY.** Proxy forms should be deposited at the Registered Office of the Company not less than 48 hours before the time fixed for the meeting.
3. **Register of Members and Share Transfer Books of the Company will remain closed from September 15, 1999 till September 25, 1999 (both days inclusive).**
4. All documents referred to in the accompanying notice and the explanatory statement are open for inspection at the Registered Office of the Company on all working days between 11.00 a.m. and 1.00 p.m. upto the date of the Annual General Meeting.

5. Members who have not encashed the dividend warrants prior to March 31, 1995 are requested to claim the amount from the Registrar of Companies, Ahmedabad, Gujarat. Members who have not encashed their dividend warrants for the years/period ended 31st March, 1995, 31st March,1996 & 31st March, 1997 may approach Company's R&T Agents for revalidating the warrants and/or for obtaining duplicate warrants.

6. The Company's shares are listed with Ahmedabad, Baroda, Bangalore, Calcutta, Delhi, Madras, Mumbai & National Stock Exchanges. The Company has paid the listing fees for the year 1999-2000 to all the aforesaid Stock Exchanges.

7. **Dematerialisation**

   Equity Shares of the Company are available for trading in Dematerialised form (Scripless trading in electronic form) through depository participants. It has now been specified by SEBI that effective May 31, 1999, settlement of Company's scrips can be done only in the Dematerialised form in the Stock Exchanges linked to the depository participants.

8. **Nomination Facility:**

   The Companies (Amendment) Act, 1999 has introduced through Section 109A, the facility of nomination to shareholders. This facility is mainly useful for all investors holding the shares in single name. Investors are advised to avail this facility to avoid the process of transmission by law. Investors holding shares in physical form may send the nomination form to the registrar and transfer agents of the Company. However if the shares are held in dematerialised form, the nomination form has to be submitted to your depository participant directly as per the format prescribed by them.

9. **Members are requested to notify any change in their address to the Company's R & T Agents, Data Software Research Co. Pvt. Ltd. Sree Sovereign Complex No. 22, 4th Cross Street, Trustpuram, Kodambakkam, Chennai 600 024.**

10. Members / Proxies should bring the Attendance Slip duly filled in for attending the meeting.

11. Members desiring any information as regards the Accounts are requested to write to the Company at least 15 days before the date of the meeting, as to enable the management to keep the information ready.

By Order of the Board

Mumbai
July 30, 1999

S.N. Puri
Director

ANNEXURE TO NOTICE

EXPLANATORY STATEMENT

Pursuant to Section 173(2) of the Companies Act, 1956 the following Explanatory Statement sets out the material facts relating to item nos. 6 & 7 mentioned under the heading **as SPECIAL BUSINESS:**

Item No. 6

Issue of Equity Shares with or without warrants on rights basis to the existing shareholders

While considering the application made by the Company for additional financial assistance to financial Institutions, led by Industrial Development Bank of India (IDBI), IDBI has stipulated that the promoters of the Company should bring in their proportionate share amounting approximately to Rs.200 crores. The promoters of the company have accordingly agreed to do so.

Consequently, the Company, subject to the appropriate approvals, proposes to issue Equity Shares of Rs. 10/- each aggregating to an amount not exceeding Rs. 350/- crores with or without Warrants, on rights basis, in such ratio and at such price as may be determined by the Board of Directors to the existing shareholders of the Company, as on a record date to be fixed by the Board of Directors. The proposed rights issue shall carry a right of renunciation of entitlement. The detailed terms and conditions of the issue will be determined in consultation with Lead Managers and/or such other agencies if any, to the issue.

Your Directors, therefore, recommend the resolution for your approval.

None of the Directors is concerned or interested except to the extent of rights entitlement arising out of the above issue.

Item No.7

Alteration of Memorandum of Association

In view of the proposal contained in the notice to issue shares on rights basis, it is necessary to increase the Authorised Share Capital of the Company. Accordingly, the resolution under item No.7 seeks to increase the authorised share capital and amend the capital clause contained in the Memorandum of Association of the Company.

Your directors, therefore, recommend the resolution for your approval.

None of the Directors is interested or concerned in the resolution.

By Order of the Board

Mumbai
July 30, 1999

S.N. Puri
Director

DIRECTORS' REPORT

To the Members of **Essar Steel Limited**

Your Directors have pleasure in submitting the **Twentythird** Annual Report of your Company together with the Audited Accounts for the year ended March 31, 1999 and Auditors' Report thereon.

1.0 OPERATIONS

Your Company, during the year under review, maintained a very high level of capacity utilisation in both the Hot Rolled Coils (HRC) and Hot Briquetted Iron (HBI) production. The production level of the HRC registered an increase of 3% over the previous year from 1,530,847 MT to 1,582,539 MT, thereby achieving 79% average capacity utilisation for the whole year compared to 77% in the previous year.

The HBI production continued its consistency and has maintained capacity utilisation of 97% with a production of 1,701,711 MT. Major portion of this was captively consumed for steel making thereby saving precious foreign exchange required for import of scrap.

The Income from sales amounted to Rs.2263 crores and the total income amounted to Rs.2452 crores. Due to adverse market conditions coupled with the change in the product and market mix, realisation for the Company's products were lower resulting in a drop of Rs.260 crores in the total sales turnover.

The steel industry has been under the worst ever cyclical downturn over the past two years with prices dropping to 20-year lows. In fact during FY' 99, prices have dropped from the peak level of US$ 370/MT to unprecedented lows of US$ 180/MT. This has severely eroded the sales realisations of all steel producers both international and domestic. Margins were under severe pressure and the situation was exacerbated by dumping from CIS countries. The impact of the fixation of floor price and anti-dumping measures was felt only in the last quarter of FY 99.

2. FINANCIALS

2.1 NET WORTH

The paid up capital of the Company as at March 31, 1999 is Rs.330.35 Crores and the net worth stands at Rs. 1735.20 crores.

2.2 *THE FINANCIAL RESULTS*

(Rs. in crores)

Particulars	Year ended March 31, 1999	March 31, 1998
Gross Profit before interest, Depreciation and Taxation	**374.06**	883.11
Less : Interest	**502.40**	530.99
Profit/(Loss)before Depreciation and Taxation	**(128.34)**	352.12
Less : Deferred revenue expenses	**41.89**	32.79
Less : Depreciation	**326.22**	292.32
Profit before Tax	**(496.45)**	27.01
Provision for Taxation (MAT)	-	2.31
Profit after Tax	**(496.45)**	24.70
Add : Balance brought Forward from the previous year	**162.12**	200.89
Add : Transfer from Invest-ment Allowance Reserved (utilised)	**48.38**	8.75
Total amount available for appropriations	-	234.34
Less: Appropriations	-	
Debenture Redemption Reserve	-	72.22
Total	**48.38**	72.22
Balance carried forward to next year	**(285.17)**	162.12

In view of the losses, your Board of Directors has not recommended any dividend.

2.3 STATUTORY ANNUAL AUDIT

Auditors observations on accounts have been extensively dealt with in the notes thereon and they being self explanatory are not commented upon.

2.4 FINANCIAL CLOSURE

Financial closure of company's projects becomes complete with the approval of additional assistance of Rs. 378 crores by All India Financial Institutions (AIFIs) to the Company. While approving the said assistance, AIFIs have required Company's promoters to bring in additional contribution and in compliance thereof, the Company has undertaken the process of issue of equity shares on rights basis, details of which would be given in the notice of the Annual General Meeting.

3.0 ENERGY, TECHNOLOGY & FOREIGN EXCHANGE

Details of energy conservation and research and development activities undertaken by the Company along with the information in accordance with the provisions of section 217(1) (e) of the Companies Act, 1956 read with the Companies (Disclosure of Particulars in the Report of the *Board of Directors) Rules, 1988, are given in the Annexure.*

4.0 DIRECTORS

Ms. Rita Vasan (ICICI nominee) resigned from the Board with effect from 16th December, 1998. The Board placed on record appreciation for the invaluable contributions made by her during her tenure.

Ms. Chanda Kochhar was appointed as nominee director of ICICI with effect from 16th December, 1998.

Mr. D.D.Udeshi, Mr. Sanjeev Shriya and Mr. P.S. Ruia are retiring by rotation at the forthcoming Annual General Meeting and, being eligible, offer themselves for reappointment. The Board recommends their reappointment.

5.0 SUBSIDIARY

During the financial year under review, Essar Minerals Limited (EML) has become Wholly Owned Subsidiary of the Company. In accordance with the directions from Company's Institutional Lenders, the Company has hived off its pellet division to EML with effect from close of business hours on March 31, 1999 for a total consideration of Rs. 1126.72 crores. Further in terms of said direction, the Company is on the look out for a suitable joint venture partner such that EML can be converted into a joint venture. The Company has already approached Financial Institutions for financial assistance and considering the soundess of the project and benefits which will be derived by the Company and the country, the Company is hopeful of a very favourable response from the Institutions. Negotiations with potential joint venture partners are also at an advance stage of conclusion.

6.0 DIVESTMENT

To address the situation arising out of the recessionary trends affecting the Steel Industry globally and with a focus to concentrate only on the *core business of steel, the Company had submitted a re-structuring* programme to the All India Financial Institutions(AIFI), which was well received and supported by the AIFIs. AIFIs led by IDBI, while sanctioning additional financial assistance to the Company, had stipulated that the shares held by the Company in Essar Power Limited be sold to a *prospective buyer, so as to reduce the debt burden of the Company.*

7.0 PERSONNEL

Your company has a highly dedicated technical and professional team to manage various operations. Your Directors wish to place on record their appreciation for the contribution made by the employees for the success of the Company.

Information in accordance with sub-section (2A) of section 217 of the Companies Act, 1956 read with Companies (Particulars of Employees) Rules, 1975 are given in the statement forming a part of this Report. *However, as per the provisions of section 219(1)(b)(iv) of the Companies* Act, 1956, the Report and Accounts are being sent to all shareholders of the Company excluding the aforesaid information. Any shareholder interested in obtaining a copy of the particulars may write to the Company Secretary at the Registered Office of the Company.

8.0 AUDITORS

Your Company's auditors M/s. Lovelock & Lewes, Chartered Accountants, will retire at the ensuing Annual General Meeting and have confirmed their eligibility and willingness to accept the office, if re-appointed. The Board recommends their re-appointment.

9.0 Y2K COMPLIANCE

Your Company has already undertaken a comprehensive plan to address and achieve the year 2000 (Y2K) Compliance for various operations, processes, services and information system of the Company. The *compliance includes monitoring Y2K compliance of the major customers* and vendors of the Company. The Company is expected to be Y2K compliant by December 1999. The cost to the Company on account of Y2K compliance is expected to be Rs.7 crores.

10.0 ACKNOWLEDGEMENT

Your Board places on record its gratitude to the Company's valued Customers, Suppliers, Dealers, Central and State Governments, Bankers, Financial Institutions, Members, International lenders and Investing Public for their continued support and confidence in the Company.

For and on behalf of the Board

Mumbai, May 31,1999

S. N. RUIA
Chairman

Annexure to Directors' Report
Particulars required under the Companies (Disclosure of Particulars in the Report of Board of Directors) Rules, 1988

A. CONSERVATION OF ENERGY ;

a) Energy Conservation measures taken:

1. Optimisation of transformer voltage required for HBI LT drives was done through necessary corrections in the transformer secondary voltage. This saved the Company 99,360 units per month.
2. Constantly endeavouring to increase the fuel efficiency of reheating furnaces by increasing percentage of hot slabs as input materials. In April 99 we achieved 31.5 % hot charging.
3. Due to increase in percentage of hot charging of slabs we have reduced the fuel consumption by approximately 40 kcal/kg.
4. improved Electrode Regulation :- After replacing P-type regulator by PI- type the variation in the actual input voltage to the set value has come down drastically, this has resulted in improved power input and thereby reducing the losses.
5. Tap-2 operation in 80MW Transformers: -Earlier it was a practice to run the furnaces in Tap-3, after switching to Tap-2 operation the power input to the bath has become consistent resulting in less losses.
6. With the addition of 4284 KVAR 6.6 KV H.T. capacitors, the power factor has improved to 0.95 thereby reducing the maximum demand and power consumption.
7. Over capacity motors have been identified in the plant. One H .T. motor of 180 KW in the additive grinding area has been replaced by a L.T. motor of 132 KW.
8. Steps have been taken to install variable speed driver wherever possible. This year we have installed two variable speed drivers – 250 KW and 752 KW.

b) Additional Investments and proposals being implemented for reduction in consumption of energy :

1. With a view to reduce power consumption in EAF, it is planned to increase percentage of carbon in HBI through coke breeze addition during briquetting operation.
2. Hot HBI Charging :- HBI comes out of the modules at 600 Deg C is quenched by water to 60 Deg C before being sent to Electric Arc Furnace for melting. We are planning to bring hot HBI as it is in a vessel of 50T capacity and charge it into the furnace. Energy saving envisaged is 34.6 kWh/t of liquid steel.
3. Cooling zone bleed in reduction furnace in module I is being implemented. This is the first HBI Plant wherein this modification is being done. This shall enhance the furnace performance, thereby reduce the operating cost of HBI.
4. Hot direct charging in reheating furnaces. The necessary equipments have been erected, Which will further reduce the fuel consumption.
5. Roll lubrication system in the finishing mill. This is expected to reduce rolling loads and hence will reduce the motor power consumption.
6. System Study to Upgrade Current :- M/s ABB Industries AG has just completed the feasibility study of putting 150 Ka of current instead of 125 Ka of present input, this will help in putting more power, high productivity and reduction in energy losses.
7. Post Combustion Technique :- This technique involves the burning of CO gas in the slag and transfer of this heat to Metal. The feasibility study is in progress.

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

As mentioned in (a) & (b) above

B. TECHNOLOGY ABSORPTION :

The Company has fully absorbed the MIDREX technology obtained from Voest Alpine, Austria for the production of HBI. It has also absorbed technology supplied by METCHEM for HRC plant including DC-Electric Arc Furnace (s), Continuous Casters and the Hot Strip Mill. The Company has emerged as the largest user of HBI in DC EAF and developed satisfactory technology for the same. The company has also fully absorbed the Lurgi, West Germany technology for manufacture of Iron Oxide Pellets.

C. FOREIGN EXCHANGE EARNINGS AND OUTGO ;

I) Activities relating to exports, initiatives to increase exports, developments of new export markets for products and services and export plan.

Trial rolling of wider & thinner material is being done. This is expected to fetch more orders in export market and expected increase in NSR is to the tune of USD 25 to 30 per metric ton. HRC manufactured by the Company was exported to various Countries like USA, EU, France, Malaysia, Japan, South Korea, Indonesia, Gulf, Bangladesh & Belgium. We have exported about 442,000 Tons of HRC with export value having reached a level of about 104 Millions USD. We have also exported about 358,000 Tons of Pellets manufactured by the Company to China & Belgium with export value of about 11 Million USD.

II) Total Foreign exchange used and earned

		(Rs. in Crores)
a)	Total Foreign exchange directly earned	465.86
b)	Foreign exchange earned through third party Exports	-
c)	Others	13.68
	Total foreign exchange earned (a + b + c)	479.54
d)	Total foreign exchange used	
	i) For import of plant and machinery/technical know-how	7.91
	ii) Others including raw materials and interest	575.00
	Total	582.91

Particulars with respect to Conservation of Energy :

FORM A

A. Power and Fuel Consumption

	Current Year	Previous Year
1. Electricity		
a) Purchased		
Unit (Lakhs)	1,016,43	1,346.12
Total Amount (Rs. in crores)	67.75	83.14
Rate/Unit (Rs.)	6.67	6.18
b) Own generation		
(i) Through diesel generator		
Unit	47,000	Nil
Units per ltr. of diesel oil	5.14	Nil
Cost/Unit (Rs.)	1.77	NA
ii) Through gas turbine/generator		
Unit (Lakhs)	1,094.09	2,338.80
Units / SM3 of gas	3.73	3.73
Cost of fuel/Unit (Rs.)	0.55	0.55
iii) Through third party on conversion basis		
Unit (Lakhs)	16,460.34	14,535.19
Units / Ltr of NGL/HSD/NG	4.77	5.09
Cost of fuel/Unit (Rs.)	0.89	0.46
2. Coal (specify quality and where used)		
Quantity (tones)		
Total Cost	—	—
Average Rate	—	—
3. Furnace Oil	—	—
Quantity(k. ltrs)	22,337.86	24,127.89
Total Cost (Rs. crs)	12.25	15.65
Average Rate (Net of Modvat)	5,484	6,488
4. Others	—	—
Quantity.(NGL) – MT	34,599.47	—
Total Cost (Rs.Crs)	23.78	—
Rate/Unit	6,872	—
Quantity.(NG) - '000 SM3	45,582.47	20,890.47
Total Cost (Rs. Crs)	9.32	4.30
Rate/Unit	2.05	2.06

B. Consumption per unit of Production

	Standard (If any)	Current Year	Previous Year
Product: Hot Briquetted Iron	Unit Per MT	Unit Per MT	Unit Per MT
Electricity	125	114	123
Furnace Oil	—	—	—
Coal (specify quality)	—	—	—
Diesel Oil	—	—	—
Others - Natural Gas (SM3)	325	303	261
Product: Hot Rolled Coils	Unit Per MT	Unit Per MT	Unit Per MT
Electricity	—	996	998
Furnace Oil	—	—	—
Coal (specify quality)	—	—	—
Diesel Oil	—	—	—
Others – NGL (Ltr)	—	30	—
Other – NG (SM3)	—	29	14
Product: Iron Oxide Pellets	Unit Per MT	Unit Per MT	Unit Per MT
Electricity (kWh)	60	54	55
Furnace Oil (Ltr)	20	14	16
Coal (specify quality)	—	—	—
Diesel Oil	—	—	—
Others (Specify)	—	—	—

FORM B

RESEARCH AND DEVELOPMENT (R & D):

The Company has well equipped Laboratory facilities with a highly qualified team of engineers and technologists who are conducting developmental work continuously.

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

(a) During the year 1998-99 R & D was carried out to determine the suitability of improved version of reformer catalyst manufactured in India. Essar shall be the first HBI Plant in the world to use the improved version of the catalyst in Module II in 1999. This shall enhance the reformer capacity.

(b) Latest development in Midrex process has been introduced in Module I in March 1999. This shall increase the Module capacity by 25%. Similar changes are planned to be carried out in Module II & III in a phased manner in 1999. These changes shall increase the HBI production capacity to 2.4 MTPA by the end of 1999-2000. The increase in production shall reduce the energy consumption by 16%.

2. Future Plan of action

(a) Upgradation of descaler nozzles by introducing scale master type nozzles to improve in surface quality, efficiency of descaling system and life of work rolls due to reduced rollwear.

(b) Installation of Hunt valves & additional descaling pump to improve in surface quality, efficiency of descaling system and faster response of header operation.

(c) Installation of 7th Booster pump to improve roll cooling efficiency leading to increase in workroll life and productivity.

(d) Rolling of critical sections like API grade, 1.2, 1.4 mm strips for galvanising application, microalloyed grades in 2000 4, 5 & 6 mm section for widening of product base and larger market coverage.

(e) RTC & Mill pacing models to improve fuel efficiency in furnace as the slab heating delays can now be predicted more accurately.

(f) The existing LYNX operating system of Level – 1 computers made compatible for using Pentium processor for faster response of level – 1 system and eliminate delay due to level – 1 PCs.

TECHNOLOGY ABSORPTION, ADAPTATION AND INNOVATION :

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

(a) The Company has fully absorbed the MIDREX technology obtained from Voest Alpine, Austria for the production of HBI.

(b) The Company has fully absorbed the METCHEM technology obtained from METCHEM Inc. Canada for the production of HRC.

(c) The Company has fully absorbed the Lurgi, West Germany technology for manufacture of Iron Oxide Pellets. The Iron Ore Grinding System has been modified to handle different types of Iron Oxide Fines.

2. Imported technology

Product	Technology from	Year of import	Status of absorption/adaptation
HBI (Sponge Iron)	MIDREX Corpn. U.S.A./Voest Alpine, Austria	1989-90	Fully absorbed
HRC	METCHEM Inc. Canada	1991-94	Fully absorbed
Iron Ore Pellets	LURGI GmbH Germany	1993	Fully absorbed