



**REPORT OF THE
COMPTROLLER AND AUDITOR GENERAL
OF INDIA**

**UNION GOVERNMENT
No. 5 (COMMERCIAL) OF 1993**

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GOA SHIPYARD LIMITED



REPORT OF THE
COMMISSIONER OF THE
CENTRAL GOVERNMENT
OF INDIA

GOVERNMENT OF INDIA
CENTRAL GOVERNMENT



**REPORT OF THE
COMPTROLLER AND AUDITOR GENERAL
OF INDIA**

**UNION GOVERNMENT
No. 5 (COMMERCIAL) OF 1993**

Authenticated

*sd/-
Rakesh Rajya Mautri*

GOA SHIP YARD LIMITED



REPORT OF THE
 COMPTROLLER AND AUDITOR GENERAL
 OF INDIA

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T A B L E O F C O N T E N T S

Sl. No.	Chapter	Page
	Preface	(ii)
	Overview	(v)
1.	Introduction	1
2.	Objectives	2
3.	Organisation and Control	3
4.	Capital and Loans	4
5.	Projects	5
6.	Production Performance	8
7.	Financial Performance	27

Annexure

TABLE OF CONTENTS

1

2

3

Section 1
Introduction and
Other

Section 2
The
The

PREFACE

Audit Boards are set up under the supervision and control of the Comptroller and Auditor General of India (C&AG) to undertake comprehensive appraisal of the performance of the Companies and Corporations subject to audit by C&AG.

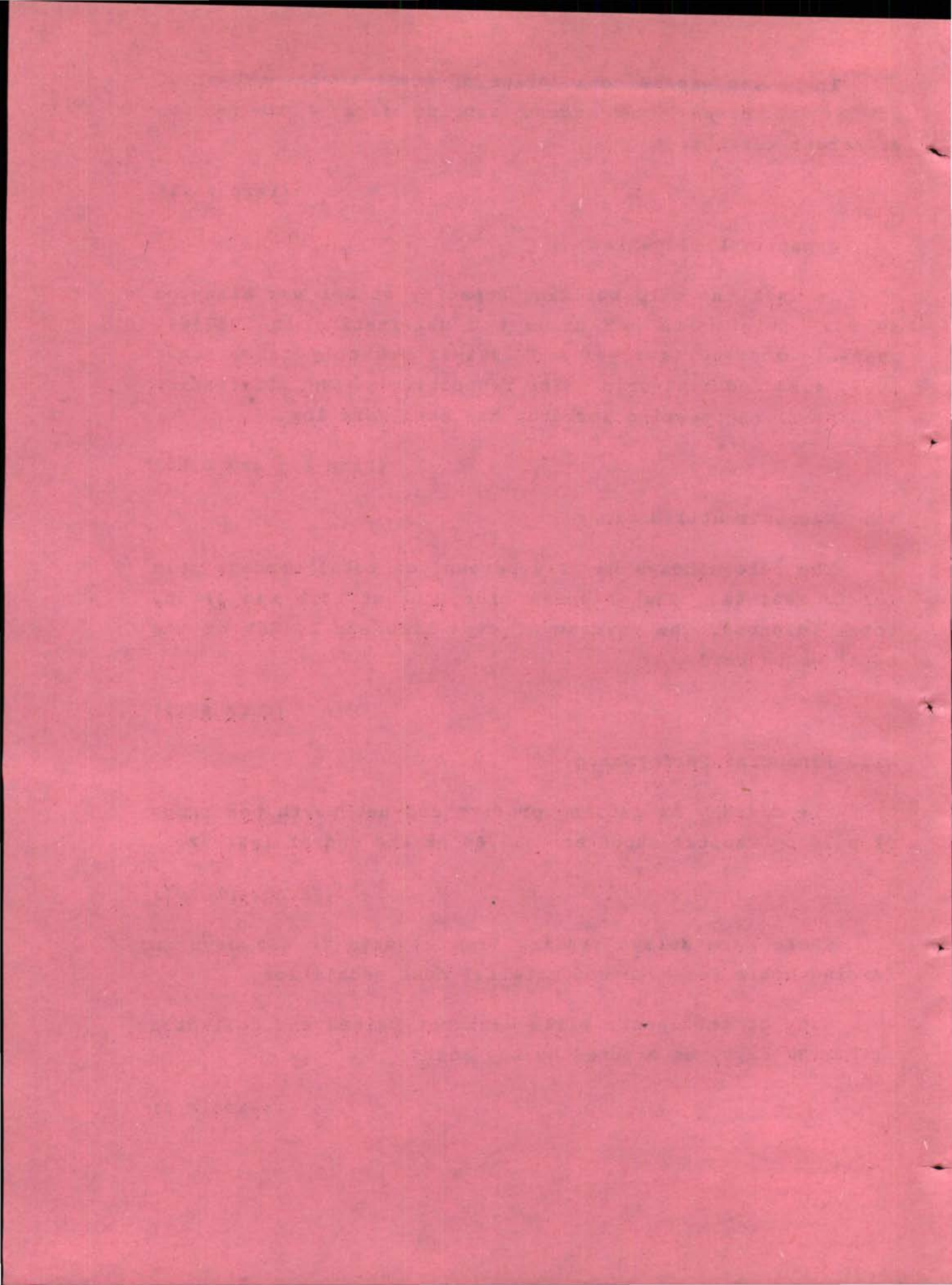
2. Part-time Members of Audit Boards are appointed by the Government of India (by the respective Ministry or Department controlling the Company or Corporation) with the concurrence of the Comptroller and Auditor General of India.

3 The report on Goa Shipyard Limited was finalised by an Audit Board consisting of the following members:

Shri N.Sivasubramanian	Deputy Comptroller and Auditor General-cum-Chairman, Audit Board.
Shri Ananda Shankar	Principal Director of Commercial Audit & Ex-Officio Member, Audit Board -I, Bombay.
Shri K.P.Lakshmana Rao	Principal Director of Commercial Audit & Ex-Officio Member, Audit Board, Madras.
Shri N.R.Rayalu	Principal Director of Audit (AirForce & Navy) New Delhi.
Shri C.M.Rao	Formerly Officer On Special Duty Ministry Of Shipping and Transport. - Part Time Member
Shri.P.U.Cariappa.	Formerly Chief General Manager Cochin Shipyard Limited. - Part Time Member

4. The Audit Board held discussions with the representatives of the Ministry of Defence, Department of Defence Production and Supplies.

5. The Comptroller and Auditor General of India wishes to place on record his appreciation of the work done by the Audit Board.



OVERVIEW

1. Introduction

The Goa Shipyard Limited (GSL) was originally established in November 1957 as a Public Limited Company by the Portuguese Authorities under the name 'Estaleiros Navais De Goa". Following the liberation of Goa in December 1961, the Yard was taken over by the Government of India and was given on lease to Mazagon Dock Limited from 14th April 1962 to 30th September 1967. A separate company under the name of Goa Shipyard Limited was formed as a subsidiary of Mazagon Dock Limited and the company started functioning with effect from 1st October 1967. Goa Shipyard Limited has become an independent company with effect from 11th August, 1992.

(Para 1)

II. Borrowings

Long term loans from Government of India amounting to Rs.5.74 crores was outstanding for repayment as on 31st March, 1992.

The terms and conditions of the loans provided for rebate of 1/4% in the interest rate for timely repayment of principal and payment of interest. GSL did not claim the rebate. On being pointed out by audit in June 1987, the Company claimed rebate of Rs.2.06 lakhs in April 1988 for the period upto March 1987. Rebate for the subsequent period upto March 1989 was claimed in March 1990 and April 1991. The total amount of rebate upto March 1989 amounting to Rs.5.09 lakhs has not been paid by the Government so far.

(Para 4)

III Projects

With a view to modernising the facilities and improving the capacity for ship construction and ship repairs, GSL undertook three development programmes and incurred an expenditure of Rs.10.72 crores. But the purpose of expenditure for Rs.8.87 crores has not been achieved in that, there has been a drop in ship repair business and income therefrom and the targets for new ship construction are still to be achieved.

(Para 5.1, 5.2 & 5.3)

IV. Production Performance

The Company was making profits on orders from Defence because the works were taken up on cost plus basis. The Company incurred loss on production for others, in some years. There is need to increase level of production in relation to the Capital employed.

(Para 6.)

The delays in delivery of ships ranged from 15 to 56 months.

(Para 6.4)

The value of repairs to ship and barge has been declining as a percentage of the value of production from 10 to 4 percent in recent years due to competition from small private yards and recession in shipping in the area.

(Para 6.9)

There was excess consumption of steel to the extent of 23% in 28 cases. The excess ranging from 4 to 59% on different vessels.

(Para 6.11)

V. Capacity Utilisation

In 1987 the ship building capacity of GSL was assessed at 5.25 ship units per annum but utilisation in 1987-88, 1988-89, 1989-90, 1990-91 and 1991-92 was only 3.50, 4.89, 5.08, 4.63 and 4.81 ship units respectively. The utilisation of General Engineering Workshop has been very low.

(Para 6.3 and 6.10)

VI. Manpower utilisation

The idle mandays was 2.9 percent of total mandays paid for in 1991-92. The idleness for want of work was 47% of total idleness. The payment of over time was 16.65% of the total wages paid.

(Para 6.14)

VII. Financial Performance

The Company is earning profits and net worth per rupee of paid up Capital stood at Rs.3.86 at the end of 1991-92.

(Paragraph 7.1)

There were delays ranging from 34 days to 432 days in raising bills for wage and material cost escalation.

Many of the repair bills were not raised and collected within 30 days, as ordered by the Board.

(Para 7.5)

Chapter I

Introduction

Goa Shipyard Limited (GSL) was originally established (November 1957) as a Public Limited Company by the Portuguese Authorities under the name "Estaleiros Navais de Goa". After liberation of Goa (December 1961) the yard was taken over by Government of India. In order that the yard may not remain in a state of inactivity, it was given on lease to Mazagon Dock Limited (MDL) for the period from 14.4.1962 to 30.9.1967. At the time of take over it was a small yard undertaking repairs of ore carrying marine crafts plying in Goa waters. During the period of lease, MDL incurred capital expenditure of Rs.18.77 lakhs in setting up of additional facilities for construction of barges and other small crafts. After expiry of lease period a separate limited company in the name of Goa Shipyard Limited was incorporated on 29th September 1967 as a subsidiary of MDL under the Companies Act, 1956, and it started functioning from 1.10.1967. It ceased to be a subsidiary company from 11th August, 1992. The major diversification undertaken by the Company was in the field of production of Naval Vessels, Off-shore Platforms Support cum Standby Vessels for Oil & Natural Gas Commission (ONGC), Tugs and Fishing Trawlers. During the fourteen years 1978-79 to 1991-92 a Capital Investment of Rs.34.30 crores was made in setting up of additional facilities and modernisation of the yard.

Chapter II

Objectives

2. The main objects of the Company are to carry on all or any of the business of proprietors of docks, wharves, jetties, piers, workshops and warehouses and of shipowners, shipbuilders, shipwrights, engineers, dredgers, tug and barge owners, lightermen, wharfingers, warehousemen, shipbreakers, shiprepairers, salvors, freight contractors, carriers by land, sea and air, forwarding agents and general traders.

Company entered into Memorandum of Understanding (MOU) with the Ministry of Defence from 1991-92. The Company scored 1.38 (adjusted by the Expert Committee to 1.14) for 1991-92 which indicates an "Excellent" grading.

Chapter III

Organisation and Control

9. The Company functions under the administrative control of Ministry of Defence, Department of Defence Production with supervision and control by the Chairman Cum Managing Director.

The need to prepare an Organisation Manual containing the organisational chart, basic task, Company rules, information systems and forms, procedures and codes, etc. was recommended by West German Consultants in their Productivity Study Report submitted in April, 1986. It has not been prepared. Ministry replied (June 1992) that the Company is endeavoring to draw up the manual. Management stated (January 1993) that it will comply with ISO 9000 requirements.

Chapter IV

Capital and Loans

4. The authorised capital was Rs. 15 crores as on 31st March 1992, and paid up capital was Rs.8.42 crores (Government of India Rs.3.76 crores and MDL Rs.4.50 crores and others Rs.16 lakhs).

Government of India advanced from time to time loans which stood at Rs.5.74 crores on 31st March 1992. Interest charged ranged from 6.5% to 15% per annum. The Company availed of deferred credit facility from foreign suppliers (guaranteed by the Government of India) which stood at Rs.154.22 crores as on 31.3.1992.

The terms and conditions of loans provided for rebate of 1/4% in the interest rate for timely repayment of principal and payment of interest. The Company, however, did not claim the rebate from Government. After being pointed out by the audit in June 1987, the Company claimed rebate of Rs.2.06 lakhs in April 1988 for the period upto March 1987. The balance amount of rebate of Rs.3.03 lakhs was claimed by the Company in March 1990 and April 1991. Ministry stated (June 1992) that efforts are being made at Government level to expedite payment of the claim which has not been paid, so far (October 1992).

Chapter V

Projects

5.1 The shipbuilding facilities available in September, 1987 included two slipways (length of 114 meters and 104 meters) one Production and Assembly Bay and one Machine Shop. The third slipway was commissioned in 1970-71 at a cost of Rs.12.86 lakhs. With a view to augment the capacity for ship construction and ship repairs and to diversify into the field of manufacture of Exploratory Fishing Vessels, Offshore Platform Support cum Standby Vessels (OPSSVs), Offshore Patrol Vessels (OPVs) and Warships viz Landing Craft Utility (LCU), Survey Crafts, Seaward Defence Boats (SDBs) etc; following projects were undertaken and completed.

Project (year of sanction in bracket)	Estimated cost	Expenditure incurred
(Rupees in lakhs)		
I. Expansion Scheme 1973-74: Phase-I(February 1975)	86.00	87.37
Phase-II(January 1978)	63.75	97.57
II. Extension of Slipway No.4 and allied works and capital dredging (June 1982)	99.00	133.96
III. Augmentation of facilities under Master Plan (Sept.1984)	760.00	753.09
	1008.75	1071.99

5.2 The additional value of production of ship and barge repairs achieved by the Company after completion of the project "Expansion Scheme Phase-II" Rs.50.27 lakhs in the first year (1984-85) which was more than the anticipated quantum of Rs.44 lakhs. But in subsequent three years i.e. 1985-86 to 1987-88 it was Rs.67.54 lakhs; Rs.31.02 lakhs and Rs.10.17 lakhs which was respectively 90%, 35% and 10% of the anticipated additional value of production. Ministry stated (June 1992) that due to recession in Shipping Industry and export of Iron ore, ships calling at Mormugao Harbour declined. Also due to increase in operational cost

many of the Mine owners placed their barges on Management contract. The Contractors went for repair of their barges to small repair yards and not to GSL. Thus, ship repair activity in GSL dropped. But from 1989-90, ship repairs activity increased. But additional value of production was only 45.98% of anticipated increase in 1989-90.

5.3 GSL engaged (March 1983) the services of a Consulting Engineering firm for preparing a Master Plan for development of the yard in phased manner over a period of 20 years, to meet the future demand for ship building and ship repair activities. The yard was also to be modernised to build more sophisticated crafts like OSVs, Patrol and Survey Craft, Missile Crafts, Corvettes. Based on recommendations of the consultants the Board approved (May 1984) creation of additional facilities at a cost of Rs.777 lakhs. The Government, however, sanctioned the proposal for Rs.760 lakhs in September 1984. In September 1985 it was decided that procurement of one Ring Press costing Rs.110 lakhs was not necessary as another equipment (600T Shipyard Roll) already ordered would do. The cost of the project thus came down to Rs.650 lakhs.

The cost was revised to Rs.810 lakhs in (January 1986) due to increase in costs and due to the construction of larger size shop to accommodate all steel processing equipment and machinery and other changes in project.

The Project was to be completed by the first half of 1986-87. The Project could be completed only in 1988-89 due to delays in purchase of equipment and labour unrest from October 1987 followed by lock out from 4th December 1987 to 10th January 1988. Ministry stated (June 1992) that delay occurred also due to delays in understanding of computerisation in the field of shipbuilding activity for want of previous experience.

The Company was to achieve production of Rs.4000 lakhs from Ship Building activity in 1985-86, Rs.5000 lakhs in 1986-87, Rs.6500 lakhs in 1987-88, Rs.7700 lakhs in 1988-89 and Rs.8000 lakhs from 1989-90 onwards. But, the Company achieved production of only Rs.3240 lakhs in 1985-86, Rs.3046 lakhs in 1986-87, Rs.1651 lakhs in 1987-88, Rs.3743 lakhs 1988-89 and Rs.5164 lakhs in 1989-90. The Management stated (March 1990) that "the shortfall in achievement was mainly due to non-completion of new facilities. Also, there was problem in obtaining new orders due to competition, recession in shipbuilding industry all over the world and resource crunch. Delay in respect of critical equipment for majority of vessels under construction also occurred.

(Contd. in Table)

Year	1985-86	1986-87	1987-88	1988-89	1989-90
Ship Construction	3240.00	3046.00	1651.00	3743.00	5164.00
Ship Repairs	180.00	180.00	180.00	180.00	180.00
Ship Repairs	50.00	50.00	50.00	50.00	50.00
Ship Repairs	15.00	15.00	15.00	15.00	15.00
TOTAL	3585.00	3371.00	2076.00	4088.00	5509.00
Ship Construction	3780.00	5275.00	3049.99	3780.00	5275.00
Ship Repairs	180.00	180.00	180.00	180.00	180.00
Ship Repairs	50.00	50.00	50.00	50.00	50.00
Ship Repairs	15.00	15.00	15.00	15.00	15.00
TOTAL	4030.00	5500.00	3394.99	4125.00	5510.00
Ship Construction	3500.00	5250.00	3000.00	3500.00	5250.00
Ship Repairs	100.00	100.00	100.00	100.00	100.00
Ship Repairs	50.00	50.00	50.00	50.00	50.00
Ship Repairs	15.00	15.00	15.00	15.00	15.00
TOTAL	3765.00	5500.00	3265.00	3765.00	5515.00
Ship Construction	3800.00	5200.00	3000.00	3800.00	5200.00
Ship Repairs	100.00	100.00	100.00	100.00	100.00
Ship Repairs	50.00	50.00	50.00	50.00	50.00
Ship Repairs	15.00	15.00	15.00	15.00	15.00
TOTAL	4065.00	5455.00	3265.00	4065.00	5465.00
Ship Construction	4000.00	5000.00	3000.00	4000.00	5000.00
Ship Repairs	100.00	100.00	100.00	100.00	100.00
Ship Repairs	50.00	50.00	50.00	50.00	50.00
Ship Repairs	15.00	15.00	15.00	15.00	15.00
TOTAL	4265.00	5205.00	3265.00	4265.00	5265.00
Ship Construction	4200.00	5100.00	3000.00	4200.00	5100.00
Ship Repairs	100.00	100.00	100.00	100.00	100.00
Ship Repairs	50.00	50.00	50.00	50.00	50.00
Ship Repairs	15.00	15.00	15.00	15.00	15.00
TOTAL	4465.00	5355.00	3265.00	4465.00	5365.00
Ship Construction	4300.00	5000.00	3000.00	4300.00	5000.00
Ship Repairs	100.00	100.00	100.00	100.00	100.00
Ship Repairs	50.00	50.00	50.00	50.00	50.00
Ship Repairs	15.00	15.00	15.00	15.00	15.00
TOTAL	4565.00	5255.00	3265.00	4565.00	5365.00

Chapter VI

Production Performance

6.1. The production targets in respect of each activity are laid down annually after taking into account the company's performance during the previous year, the work on hand and anticipated business. The table below indicates the targets and actuals for the last 7 years:

	Budgeted Original	Production Revised	Actual production	Percentage of actuals to original budget	Percentage of actuals to revised budget
(Rs. in lakhs)					
<u>1985-86</u>					
Ship construction	3785.00	3300.00	3240.12	85.60	98.19
Barge repairs	150.00	160.00	162.58	108.39	101.61
Ship repairs	50.00	20.00	20.62	41.24	103.10
General Engg	15.00	20.00	14.05	93.67	70.25
TOTAL	4000.00	3500.00	3437.37	85.93	98.21
<u>1986-87</u>					
Ship construction	3780.00	2375.00	3045.99	80.58	128.25
Barge repairs	165.00	100.00	132.59	80.36	132.59
Ship repairs	35.00	15.00	14.09	40.26	93.93
General Engg	20.00	10.00	13.77	68.85	137.70
TOTAL	4000.00	2500.00	3206.44	80.16	128.26
<u>1987-88</u>					
Ship Construction	3560.00	2530.00	1651.44	46.39	65.27
Barge repairs	100.00	100.00	112.35	112.35	112.35
Ship repairs	25.00	10.00	13.48	53.92	134.80
General Engg	15.00	10.00	8.95	59.67	89.50
TOTAL	3700.00	2650.00	1786.22	48.28	67.40
<u>1988-89</u>					
Ship Construction	4300.00	3800.00	3743.32	87.05	98.51
Barge Repairs	50.00	55.00	122.87	245.74	223.40
Ship repairs	35.00	35.00	54.02	154.34	154.34
General Engg	15.00	10.00	11.00	73.33	110.00
TOTAL	4400.00	3900.00	3931.21	89.35	100.80
<u>1989-90</u>					
Ship Construction	6100.00	4900.00	5163.80	84.65	105.38/
Barge repairs	40.00	20.00	62.82	157.05	314.10
Ship repairs	50.00	70.00	98.82	197.64	141.17
General Engg	10.00	10.00	17.93	179.30	179.10
TOTAL	6200.00	5000.00	5343.37	86.18	106.87
<u>1990-91</u>					
Ship Construction	6000.00	6255.00	6558.88	109.31	104.86
Barge repair					
Ship repairs	100.00	135.00	310.94	345.49	235.33
General Engg	10.00	10.00	13.12	131.20	131.20
TOTAL	6110.00	6400.00	6882.94	112.84	107.55

1991-92

Ship Construction	7855.00	7775.00	8267.07	105.25	106.33
Repair and					
General Engg	145.00	225.00	321.73	221.88	143.00
TOTAL	8000.00	8000.00	8588.80	107.36	107.36

Non-achievement of the original production targets except for 1990-91 and 1991-92 were generally attributed to:

- Delay in receipt of critical equipment and material.
- Delay in finalisation of the contracts after receipt of Letter of Intent.
- Delay in receipt of drawings and modifications from Customer.
- Delay in receipt of the orders.

The downward trend in ship repair and barge repairs work load was due to reduced business from Merchant vessels, fall in the export of iron ore from Goa and competition from small repair yards.

The Capital employed and the value of production in last 5 years were as given below:

	1987-88	1988-89	1989-90	1990-91	1991-92
			(Rs.in lakhs)		
Production	1786.22	3931.21	5343.37	6882.94	8588.80
Capital employed	2001.37	3587.96	8769.58	13484.57	20466.33
Percentage of production to capital employed	89.25	109.57	60.93	51.04	42.00

On the steady decline in percentage of production to capital employed Management stated (March 1990) that efforts were being made to achieve higher production.

6.2 Analysis of production for Defence and others is given below:-

Year	Total production	Production for Defence	Production for others	Total profit or loss of the Company	Profit from production for Defence	Profit/Loss(-) from production for others	Percentage of production for Defence to total production
	(Rs. in lakhs)						
1987-88	1786.22	1508.11	278.11	(-)109.22	12.35	(-)121.57	84.43
1988-89	3931.21	3390.21	541.00	216.97	253.88	(-)36.91	86.24
1989-90	5343.37	4974.94	368.43	714.18	856.31	(-)142.13	93.10
1990-91	6882.94	6378.90	504.04	1366.67	1261.15	105.52	92.68
1991-92	8588.80	8189.39	399.41	2372.28	2200.09	172.19	93.35

The Company is making profit on Defence Production, because the works were undertaken on cost plus basis. Cost of labour and material and escalation in costs were covered by customer. Company incurred losses on production for others in some years.

During the years 1979-80 to 1987-88 GSL delivered 56 ships/crafts to Defence and to others. The profit or loss on each vessel and date of laying keels, launching and delivery of only 51 vessels as furnished by the Company are detailed in Annexure I. GSL incurred losses on all vessels except on mooring vessel delivered to other than Defence from 1985 onwards.

6.3 Capacity Utilisation

GSL has four slipways. Two are used for launching newly built vessels. The other two are used for repairing barges and small crafts. There are three covered production/assembly bays of varying sizes. The fitting out work of new vessels and afloat repairs are carried at Fitting Out Jetty (FOJ) measuring 120 metres in length and 12 metres in width. The approach jetty is also being used for berthing small crafts. With these facilities GSL can undertake construction of sophisticated vessels upto 1200 tonnes displacement, 105 M in length and 5 M draught.

Till 1986-87 production/shipbuilding capacity of the Yard was monitored in terms of the steel throughput. This, however, did not reflect the true physical performance. The Planning Department made an attempt in 1987-88 to assess the capacity of the Yard in terms of number of standard ships that could be built in the yard. The capacity was assessed as 5.25 standard ships per year calculated on an average of 2,75,000 mandays available for ship construction during the year and mandays required (52500) to construct a standard ship (like Survey Craft SDB).

The Company stated (April 1991) that the development plans undertaken were meant to increase the facilities for quality of production and not the quantity. This was not correct as expansion projects envisaged quantitative increase in production. The Management later stated (January 1993) that an attempt was made to refix the capacities but it was not successful.

The achievement in terms of ship units during the years 1987-88 to 1991-92 are given below along with the mandays required (on the basis of 52500 mandays per ship unit) and the actual mandays utilised, indicating that the norms were liberal.

	Shipunits achievable	Shipunits achieved	Normative mandays required	Actual mandays utilised
1987-88	5.25	3.50	183750	182358
1988-89	5.25	4.89	256987	229621
1989-90	5.25	5.08	266700	233009
1990-91	5.25	4.63	243075	202609
1991-92	5.25	4.81	252525	238934

Ministry stated (June 1992) that the fall in capacity utilisation (even at 5.25 ships per year) in the year 1987-88 was due to labour unrest/lockout, and non-receipt of equipment.

In the year 1988-89 and 1989-90 delay in receipt of critical equipment for almost all the vessels, was the major reason.

The following table indicates the capacity assessed, targeted production and actual production during the years 1982-83 to 1991-92, in terms of tonnes of steel fabrication.

Year	Assessed Capacity	Budgeted production	Actual production	Percentage of utilisation to Assessed capacity	Percentage of utilisation to Budgeted production
(In M.T.)					
1982-83	2400	2400	2480	103.33	103.33
1983-84	2400	2400	2839	118.29	118.29
1984-85	2400	2400	2515	104.79	104.79
1985-86	2400	2400	2525	105.21	105.21
1986-87	2400	2400	2258	94.08	94.08
1987-88	2400	2400	1903	79.29	79.29
1988-89	2400	2400	2768	115.33	115.33
1989-90	2400	2400	2414	100.58	100.58
1990-91	2400	2400	2248	93.67	93.67
1991-92	2400	2400	1854	77.25	77.25

While GSL had achieved more than the assessed capacity during the years 1982-83 to 1985-86 and also during 1988-89 and 1989-90, during 1986-87 the capacity utilisation was only 94.08% due to lean order book position. During 1987-88, the steeper drop in the utilisation of the assessed capacity was due to industrial unrest and unsatisfactory order book position. During the year 1990-91 and 1991-92 the capacity utilisation declined again.

6.4 Delay in delivery of ships

The delays in delivery of ships ranged from 15 months to 56 months. During the years 1979-80 to 1991-92 there were delays in delivery of vessels due to delays in construction.

Of 39 vessels delivered to Indian Navy as many as 20 vessels were delivered after a period of 8 months to 56 months of contracted delivery date. In respect of other vessels, the delay ranged from 4 months to 50 months in 28 vessels.

The reasons for delay in delivery of the vessels were attributed (June 1992) by the Ministry to delay in supply of critical items by the suppliers, break down of equipment during sea trials, labour unrest, design modifications and structural changes made by buyers. The table below indicates liquidated damages paid by GSL during the years 1979-80 to 1991-92:

	(Rs. in lakhs)
1. Torpedo Recovery Vessel	5.80
2. Survey Craft	77.00
3. Offshore Platform Support cum Standby Vessel	25.71
4. Landing craft utility MK III	149.20
5. Heave up Vessel	12.60
6. 20T.Tug	19.95
7. Fast Petrol Vessel	39.59
8. 10 T. Tug	11.00
9. Offshore Petrol Vessel	138.75
Total	479.60

The delays were attributed to (i) frequent design changes and modification ordered by customers, (ii) non-availability of vital imported and major equipments in time, (iii) delay in clearance of imported goods by customs authorities, (iv) delay in receipt of Navy supply items, (v) delay in approval of drawings, (vi) delay in finalisation of contract and (vii) delays caused by subcontractors. Ministry stated (June 1992) that excepting in the case of 1 naval vessel and 6 other vessels the company had not incurred any loss. The loss on OPSSV in GSL was much less than that of other shipyards.

6.5 Defence Vessels

The Company contracted with Government of India on 23rd May 1988 on cost plus for delivery of 3 missile boats in

July 1991, December 1991 and April 1992. Ministry stated that a committee has been set up for fixing norms for cost of labour and they are hopeful of moving from cost plus to fixed price contracts. The boats are still to be delivered (Jan. 1993).

Survey Crafts

GSL received (February 1979) a letter of intent for construction and delivery of four Survey Crafts for the Navy. The first vessel was required to be delivered in August 1981 and remaining vessels at interval of four months.

The Survey Crafts were delivered in January, October, June and March 1984 Rs.77 lakhs (Rs.19.25 lakhs per vessel) was recovered as liquidated damages as per the terms of agreement.

Similarly of four Landing Craft Utility to be delivered by 31st December 1984, and at an interval of six months thereafter a sum of Rs.149.20 lakhs was recovered as liquidated damages. A part of the delay was due to late receipt of stern gears equipment from a supplier.

Ministry stated (June 1992) that liquidated damages from supplier of gears could not be recovered as the delay was due to labour unrest. But there was no force majeure clause in the purchase order on GSL.

6.6 Ferry Craft

On a contract (August 1983) for supply of 150 Men Ferry Craft GSL incurred loss of Rs.36 lakhs (after deducting escalation of steel and labour) mainly due to increase in labour cost and overheads consequent to delay in delivery of vessels by 8 to 10 months. The escalation clause did not fully cover the increase.

The delay in delivery of vessels was due to delay in receipt of engines, DG sets and receipt of defective gear box flanges as also changes in the specifications. Ministry stated (June 1992) that the increase in mandays on the ferry craft was due to frequent changes in the design.

The contract stipulated steel ISS 226 of 3.15 mm thickness. The Company imported in April 1984 carbon steel of 3.25 mm thickness whereas input licence was for hot rolled steel and paid a fine.

The Ministry stated (June 1992) that the error was purely technical in that import licence was for special steel and not carbon steel sheets required by the Company.

6.7 Vessels for ONGC

GSL contracted (February 1984) to construct 3 supply vessels and price was to be determined on the basis of International Parity Price (IPP) with 30% subsidy thereon. The vessels were constructed at a total cost of Rs.19.10 crores and received only Rs.17.57 crores under the pricing formula. GSL also received Rs.37.19 lakhs towards cost of modification. The Company thus incurred a loss of Rs.1.16 crores on the construction of the vessels.

Due to delay in delivery of the vessels Rs.25.71 lakhs was paid by GSL towards liquidated damages.

The main reason for the loss was given out by the Management as the International Parity price fixed by the Committee of Secretaries was unrealistic. The Company stated that it is no longer accepting orders in such conditions.

6.8 Tugs

GSL contracted (March 1986) to construct a Tug at a price of Rs.4.02 crores and cost escalation. But, the tug was constructed at a cost of Rs.5.80 crores. It was delivered in April 1988 as against contracted delivery date

of 14 October 1987. The sale price with cost escalation worked out to Rs.5.61 crores only resulting in a loss of Rs.19.00 lakhs.

Madras Port Trust had withheld an amount of Rs.6.10 lakhs towards the cost of items not supplied/short supplied or pending work on the tug. If the above payment withheld by the MPT is not paid, GSL's loss on construction of this tug would be Rs.25.10 lakhs.

The cost overrun was mainly due to utilisation of 40869 mandays against 37200 mandays estimated and delay in delivery was due to labour unrest in October and November 1987 followed by lock out upto 10th January 1988. Ministry stated (June 1992) that Company accepted the order due to the lean order book position.

6.9 Ship & Barge Repairs

The value of repair works done and share of repairs to total production of the Company in recent years is given below:

Year	Value of production	Percentage of repairs to value of production
	(Rupees in lakhs)	
1983-84	1677.28	10.23
1984-85	2769.46	5.99
1985-86	3462.38	5.29
1986-87	3224.98	4.55
1987-88	1805.68	6.97
1988-89	3952.43	4.47
1989-90	5367.26	3.01
1990-91	6914.19	4.50
1991-92	8631.59	3.73*

* Includes General Engineering also.

It would be seen that the percentage of value of repair works to the value of production has been declining. It increased to 6.97% because in 1987-88 the total production has sharply come down to Rs.1805.68 lakhs which was hardly 56% of the level of 1986-87 production. The low production during 1987-88 was due to labour unrest and lock out in the yard. The main reason for decline in the repair business was stated by GSL to be cost of repair in Private Sector yards being less and the slump in iron ore export from Goa. Ministry stated (June 1992) that another reason was recession in shipping leading to reduction of the ships calling at the Port. GSL is located on a river and there was limitation on the size of ship that could be accommodated in GSL for repair.

6.10 General Engineering

GSL has extensive workshop facilities and can undertake a variety of engineering works, though it is meant primarily as a support service for activities of GSL.

The value of total production and value of engineering work done in recent years are given below:

Year	Value of total production	Value of Engineering work done	Percentage of the value of engineering work to the total value of production
	(Rs. in lakhs)		
1983-84	1677.28	12.10	0.72
1984-85	2769.46	14.07	0.51
1985-86	3462.38	14.05	0.41
1986-87	3224.98	13.77	0.43
1987-88	1805.68	8.95	0.50
1988-89	3952.43	11.00	0.28
1989-90	5367.26	17.93	0.33
1990-91	6914.91	13.12	0.19

6.13 Inventory Control

Inventory holding has been going up as indicated below:

	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
(Rupees in Lakhs)						
1.Stores & spare parts	442.39	810.37	1746.93	5564.85	9767.65	10010.66
2.Stores in transit	43.17	4.11	536.41	1882.55	241.21	402.29
3.Loose tools	2.54	2.46	3.23	5.55	6.05	5.76
4.Scrap(at realisable value)	1.81	1.93	2.19	1.39	8.60	1.79
TOTAL	489.91	818.87	2288.76	7454.34	10023.51	10420.50
5.Work in progress	1643.57	2985.86	4613.80	8680.96	10800.39	12719.43
6.Stores/equipment consumed during the year	1580.47	670.47	2082.04	2279.46	3745.22	4758.63
7.Value of production	3224.98	1805.68	3952.43	5367.26	6914.19	8631.59
8.Inventory in terms of number of months consumption	3.72	14.66	13.19	39.24	32.12	26.28
9.Work in progress in terms of no.of months of value of production	6.12	19.84	14.00	19.41	18.74	17.68

In terms of number of months consumption inventory increased from 3.72 in 1986-87 to 39.24 in 1989-90, mainly due to construction of Missile Boats and industrial unrest during the year 1987-88.

The Board fixed (April 1986) norms for holding of inventory in terms of months consumption. For A, B and C Category of General Stock items were fixed equivalent at 3 months, 6 months and 8 months consumption, and for steel at 10 months consumption. But holdings were higher as indicated below:

	1986-87	1987-88	1988-89	1989-90	1991-92
	(Rupees in lakhs)				
Closing Stock:					
General Stock					
A Category	137.69	72.89	16.66	14.43	21.03
B Category	28.70	16.17	18.80	7.68	11.94
C Category	25.66	18.09	18.60	12.95	23.56
Consumption during the year					
A Category	191.26	108.24	123.68	134.66	147.37
B Category	23.65	16.31	20.79	16.74	17.89
C Category	5.66	4.41	5.12	11.85	10.85
Inventory in terms of months consumption					
A Category	8.64	8.08	1.62	1.29	1.71
	(3)	(3)	(3)	(3)	(3)
B Category	14.57	11.89	10.87	5.49	8.01
	(6)	(6)	(6)	(6)	(6)
C Category	54.60	48.89	43.26	13.08	26.18
	(8)	(8)	(8)	(8)	(8)

Note: (i) Figures in brackets indicate the norms fixed by the Board.

(ii) Figures for 1990-91 are not available.

Management stated (March 1990) that the norms fixed during April 1986 were based on the past consumption when Shipyard constructed low value ships. During the year 1987 the Company received orders for sophisticated vessels of high value. Company revised the norms for holding of inventory from the year 1990-91. But it was noticed, in audit, that the Company had not made any change in norms of A & B category stores. In respect of C Category of general stock items the limit was increased to 12 months. But the holding exceeded even the new norm. Ministry stated (June 1992) norms will be reviewed and refixed and steel was being procured in economical quantities at competitive prices.

6.14 Manpower Utilisation

The assessment of manpower requirement is based more on experience than any job evaluation or norms for production.

The table indicates labour utilisation in recent years.

	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
1.Average Number of workers	1821	1823	1812	1875	1906	1918
2.Total mandays available	557055	472044	547220	562525	567900	571635
3.Actual mandays utilised for	446925	374817	436197	455701	464608	461908
a)Production jobs	368594	300290	352978	355692	310665	330187
i)Ship construction	218266	182358	229621	233009	202609	238934
ii)Ship repair	2536	1806	2137	8555	10091	14687
iii)Barge repair	26122	13967	15260	8245	11963	
iv)General Engineering	1964	1905	1013	2189	1298	
v)Others	119706	100254	104947	103690	84704	76566
b)Non-production jobs	78331	74527	83219	100009	153943	131721
4.Unutilised mandays						
a)Absenteeism	93383	71975	85657	87050	90518	92911
b)Idle mandays	16747	25252	25366	19874	12774	16816
5.Percentage to total mandays available:						
a)Mandays utilised	80.2	79.4	79.7	81.0	81.8	80.9
b)Absenteeism	16.8	15.2	15.7	15.5	15.9	16.3
c)Idle mandays	3.0	5.4	4.6	3.5	2.3	2.9
6.Cost of idle mandays	15.11	22.45	25.96	24.1	19.5	30.35
(Rs. in lakhs)						

The percentage of idle mandays to total mandays available was 3% in 1986-87 and 5.4% in 1987-88. It decreased to 2.9% in 1991-92.

The reason for idle mandays was as under:

	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
Want of work	7601	14070	12290	8623	4108	7932
Want of material	92	398	86	93	73	282
Power failure	1394	867	743	309	333	184
Mechanical break down	511	307	524	520	432	447
Union activities & labour problems	559	3377	1080	2286	1100	1204
Want of helpers	439	747	2300	1736	1635	911
Festival activity & natural causes	1769	874	2113	1178	1827	2527
Wage payment	1756	1602	2177	2331	1945	1941
Miscellaneous	2626	3010	4053	2772	1317	1388
Total	16747	25252	25366	19848	12770	16816

The idleness for want of material and helpers could have been avoided by proper planning.

The shop-wise analysis revealed that percentage of idle time to total production time available was very high as indicated below:

Name of shop	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
Fitting	10.28	21.36	13.06	7.46	3.53	2.25
Electrical	6.64	12.22	13.69	6.57	3.44	0.94
Mechanical	3.63	9.05	6.76	7.34	4.51	8.36
Machine	3.93	12.33	14.55	5.11	2.69	5.55
Welding repairs	7.14	7.13	9.23	8.04	6.86	15.20
Platers	2.86	3.2	6.56	3.08	3.95	4.29
Plant maintenance	4.64	5.46	9.60	12.48	8.16	8.15
Steel preparation shop	N.A.	N.A.	9.77	5.88	5.65	13.99

Management stated (March, 1990) that the idle time in Fitting Shop and welding repairs shops was due to lack of work. Ministry stated (June 1992) that the repair workload decreased due to recession in shipping industry and a slump in Iron ore export which lead to laying off of several barges by barge owners.

The following table gives the overtime payments to workers and staff:

	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
	(Rs. in lakhs)					
Value added	1725.64	1206.22	1924.15	3125.13	3206.89	3895.56
Wages to workmen & Staff	308.89	301.83	389.33	535.42	616.00	684.13
<u>Overtime(Hrs)</u>						
Staff	69209	53183	80707	83524	77994	88073
Workman	863007	532682	1010930	782135	844012	1074911
Total(Hrs.)	932216	585865	1091637	865659	922006	1162984
<u>Overtime (Rs.in lakhs)</u>						
Staff	4.79	3.91	6.20	6.25	7.84	10.71
Workmen	43.21	28.74	58.86	60.31	73.10	103.21
Total	48.00	32.65	65.06	66.56	80.94	113.92
% of overtime to value added	2.78	2.71	3.38	2.13	2.52	2.92
% of overtime to wages for workmen & Staff	15.54	10.82	16.71	12.43	13.14	16.65

The Board of Directors of the Company in the meeting held on 27.12.1982 viewed with concern the overtime being paid and desired that efforts should be made to bring down the same to 8% of the normal wages. Still the percentage of overtime to wages ranged between 10.82% and 20.31% which is much higher than the limit fixed by the Board. Ministry stated (June 1992) that overtime paid was more due to delays in supply of critical equipment. Ministry also stated that Company had not resorted to addition in manpower, which resulted in overtime to complete the jobs on schedule. However, the foregoing analysis indicates that overtime payments are avoidable and are indicative of poor manpower planning and management.

6.15 Energy Conservation

To conserve energy, from 1989-90 for yard illumination company used Sodium Vapour Lamps. During 1990-91 capacitor banks at cost of Rs.10 lakhs was provided for improvement of power factor which has resulted in saving of Rs.20,000 per month. The percentage of energy consumption (power, fuel and electricity), to the value of production showed declining trend from 1.60% in 1986-87 to 0.43% in 1991-92.

6.16 Environmental Protection

In 1991-92, the Company undertook the installation of a Fume Extraction System in the steel preparation shop to extract the fumes emanating during plasma cutting. Further Air Incinerator to burn waste material is under final stage of construction. The Ministry and Management stated that the shipyard does not produce any harmful effluents.

CHAPTER VII

Financial Performance

7.1 The table below indicates the financial position of the Company at the end of recent years:

	1987-88	1988-89	1989-90	1990-91	1991-92
(Rs. in lakhs)					
<u>Liabilities</u>					
a)(i)Paid up Capital	842.30	842.30	842.30	842.30	842.33
(ii)Share application money	-	-	-	-	289.62
b)Reserves & Surplus	1101.40	1405.80	1846.66	2476.51	3444.64
c)Borrowings from Govt.of India	405.50	661.00	776.50	672.00	574.00
d)Deferred Credit	36.62	779.32	5391.71	9575.07	15422.08
e)Trade dues and other current liabilities (including provisions)	2541.38	3585.61	7281.56	10360.62	16936.86
	4927.20	7274.03	16138.73	23927.50	37509.53
<u>Assets</u>					
f) Gross block	1998.95	2757.65	2951.95	3399.47	3639.78
g) LESS:					
Depreciation	542.59	686.64	855.40	1043.54	1202.84
h) Net Fixed Asset	1456.36	2071.01	2096.55	2355.93	2436.94
i)Capital jobs in progress	384.45	100.59	127.94	87.67	106.32
j) Current Assets Loans and Advances	3086.39	5102.43	13914.24	21483.90	34966.27
	4927.20	7274.03	16138.73	23927.50	37509.53
Capital Employed	2001.37	3587.96	8769.58	12479.21	20466.35
Net worth	1943.70	2248.10	2688.96	3111.11	4370.47
Net worth per Re. of paid up capital (Rs.)	2.31	2.67	3.19	3.70	3.86

Note:(a) Capital employed represents net fixed assets plus working capital.

(b)Net worth represents paid up capital plus reserves.

7.2 The working results of the Company in recent years is given below:

	1987-88	1988-89	1989-90	1990-91	1991-92
	(Rs. in lakhs)				
Sales including excise duty (excluding cash subsidy)	443.93	2303.27	1276.21	4763.50	6669.77
Internal capital jobs	54.51	26.01	13.59	17.74	3.06
Other income	150.38	199.73	135.98	621.04	1417.69
Accretion(+)/Decretion(-) to work in progress	1342.29	1627.94	4067.16	2119.43	1999.04
Total	1991.11	4156.95	5492.94	7521.71	10009.56
Consumption of stores, equipment & spare parts	670.47	2082.04	2279.46	3745.22	4758.63
Sub Contract & Direct expenses	598.55	740.67	957.52	395.30	397.85
Salaries Wages & Benefits	522.14	672.94	929.68	1069.43	1239.36
Depreciation	103.16	145.19	172.66	190.85	160.26
Interest	33.41	64.91	169.80	353.06	575.09
Other expenses	172.60	234.23	269.64	401.18	506.09
Total	2100.33	3939.98	4778.76	6155.04	7637.28
Profit/Loss as per accounts(-)	109.22	216.97	714.18	1366.67	2372.28
Add(+)/deduct (-)prior period adjustment	(-)9.16	127.43	(-)47.25	616.52	(-)10.64
Profit/Loss(-) before tax	(-)118.38	344.40	666.93	1433.19	2361.64
Provision for taxation	--	40.00	125.00	676.00	1205.00
Profit(+)/Loss(-) after tax	(-)118.38	304.40	757.19	1156.64	189.52
Dividend Paid	--	-	101.08	126.34	189.52
Percentage of profit after tax					
(a)to capital employed	--	-8.48	6.18	5.62	5.65
(b)to net worth	--	13.54	20.15	24.34	26.46
(c)to equity	--	36.14	64.34	111.24	137.32

7.3 The equity capital held by the Government, percentage of dividend declared and dividend paid to the Government in recent years are given below:

	Govt. equity (Rs. in lakhs)	Percentage of dividend	Dividend paid to Govt. (Rs. in lakhs)
1987-88	375.74	-	-
1988-89	375.74	-	-
1989-90	375.74	12	45.09
1990-91	375.74	15	56.36
1991-92	375.78	22.5	84.55

7.4 The percentage of debtors to sales has improved in recent years.

As on 31st March	Considered		Total	Sales*	Percentage of debtors to sales
	good	doubtful			
	(Rs. in lakhs)				
1988	158.68	26.03	184.71	463.39	39.86
1989	286.62	27.31	313.93	2324.49	13.51
1990	308.82	34.17	342.99	1300.10	26.38
1991	188.89	88.35	277.24	4794.76	5.78
1992	81.83	91.64	173.46	6712.55	2.58

(*: Includes sale of stores and scrap)

7.5 There were delays in raising bills on Navy for wage and material cost escalation, after delivery of vessels. The period of delay ranged from 34 days to 251 days in respect of wage escalation and 41 days to 432 days in respect of material escalation. Ministry stated (June 1992) that formula for computation of labour and material cost escalation requires collection of data and there was delay in getting the certificates and supporting documents to be attached with bill. Ministry also stated that with the introduction of computer facility delay in submission of bills came down from 1989 onwards.

Out of 153 bills for Rs.533.40 lakhs for repairs done, 112 bills for Rs.374.64 lakhs were not collected from the customers within the period of 30 days laid down by the Board. The delay in payment ranged from 31 days to 1461 days. 54 bills for Rs.197.58 lakhs pertained to private parties. The amount of interest chargeable worked out to Rs.43.13 lakhs, but had not been recovered. Of the remaining 58 bills for Rs.177.07 lakhs which pertained to Government departments and Public Sector Undertakings of interest chargeable was Rs.15.40 lakhs which also had not been recovered.

In some cases Company had to take recourse to law suits for recovery of bills.

Management stated (March 1990) that Government agencies viz. Navy, Ports, Fisheries department, were regular customers for repair work and GSL had not charged interest. Company was also unable to collect advance on orders. But cases for waiver of interest or advance payment were not put up to the Board the approval of the Board.

7.6 The objective of the Company of earning Foreign Exchange through Ship Construction had not been achieved at all indicating GSL's inability to procure any orders for Merchant Ship Construction. During the seven years from 1985-86 Company earned foreign exchange of Rs.1.45 lakhs only on ship repairs.

Ministry stated (June 1992) that the earning of foreign exchange from ship repairs of was limited as repairs orders are handled by ship agents on a commission basis. Efforts were being made to secure orders through Indian Shipbuilders Association and appointment of agents.

7.7 Expenditure incurred in foreign exchange on purchase of raw materials, equipments, components, spare parts, capital goods Technical know-how, consultancy fees, inspection charges etc., during the last seven years is given below:

	1985-86	1986-87	1987-88	1988-89	1989-90	1990-91	1991-92
	(Rs. in lakhs)						
1. Raw material	52.33	38.72	-	229.12	281.59	718.87	918.53
2. Equipments, components & spare parts	66.89	710.05	212.53	1123.72	5320.26	5304.13	3012.45
3. Capital goods	139.39	41.73	140.96	37.42	7.38	25.79	17.64
4. Technical know-how professional consultancy fees & inspection charges etc	3.91	30.12	0.01	3.92	0.07	0.10	0.32
TOTAL	262.52	820.62	353.50	1394.18	5609.30	6048.89	3948.94
Value of production	3462.38	3224.98	1805.68	3952.43	5367.26	6914.19	8631.59
Percentage of foreign exchange expenditure to value of production	7.58	25.45	19.58	35.27	104.51	87.49	45.75

The percentage of expenditure in foreign exchange to value of production increased from 7.58% in 1985-86 to 25% in 1986-87, 35% in 1988-89 and 104% in 1989-90. It decreased during 1990-91 and 1991-92 to 46%.

During the years 1988-89 and 1989-90 Company imported large value of raw materials for construction of Missile Boats. Ministry stated (June 1992) that the consumption of imported equipment was considerable due to the fact that the specifications required it.

7.8 Costing System

Standard Costing System in GSL has not been introduced. Ministry stated (June 1992) that Company is doing job costing which is most suited to the Industry as most vessels are one of a type. Company stated in (January 1993) that its software will make upto date cost data available.

7.9 Internal Audit

The internal audit wing in the GSL is mainly engaged in preaudit of purchase exceeding Rs.5,000 in value, pay fixation, pay revision and grant of Annual increments to Officer and physical verification of stores and stock.

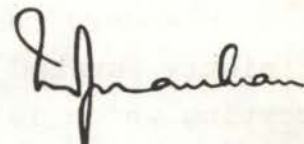
The Company has prepared Internal Audit Manual during 1992. The Statutory Auditors in their reports to the shareholders of the Company have been mentioning since 1981-82 that the existing Internal Audit System requires to be strengthened.

7.10 Management Information System

The Management Information Report to the top Management is cost oriented and based on reports generated by Finance and Accounts Department, Commercial Department, Production and Planning Department and Personal Department. It reflects estimated cost of vessels, actual cost, estimated mandays, actual mandays consumed, production value estimates and

actual, labour booked, Idle time in value and (in mandays), level of absenteeism, manpower shortage, recruitment, Repair bills outstanding, Statement of Sundry Debtors, overtime paid, usage of vehicles and utilisation of Guest House. It does not generate information on inventory holding, machine utilisation. Projects under construction and status of equipment on order.

Ministry stated (June, 1992) that Company has since introduced local area network for MIS replacing the manual MIS and it takes care of the above shortfalls.



(U.N. ANANTHAN)

Additional Deputy Comptroller and Auditor
General-cum-Chairman, Audit Board

New Delhi

The

16 JUN 1992

Countersigned



New Delhi

(C.G. SOMIAH)
Comptroller and Auditor General of India

The

16 JUN 1992

Annexure (referred to in Para 6.2)

Vessels completed by the Goa Shipyard Limited during the years 1979-80 to 1987-88 and the Profit and Loss

made thereon

Sl. No.	Name of Vessel	Yard No.	Keel Laid on	Launched on	Contracted delivery date	Delivered on	Final contract price (Rs. in lakhs)	Actual cost (Rs. in lakhs)	Profit/Loss(-) (Rs. in lakhs)
A. Defence Vessels:									
1.	Landing Craft Utility MK-II	1056	29.5.76	13.1.79	31.3.78	1.12.80	247.59	228.64	18.95
2.	Landing Craft Utility MK-II	1057	15.1.77	29.11.78	30.9.78	28.1.80	282.44	214.34	68.10
3.	Landing Craft Utility MK-II	1058	7.2.77	17.3.78	31.3.79	17.12.83	292.11	257.74	34.37
4.	Torpedo Recovery Vessel	1083	19.3.79	5.11.80	29.11.79	15.9.82	130.69	132.92	(-)2.23
5.	Torpedo Recovery Vessel	1084	19.3.79	5.11.80	29.5.80	23.2.83	132.34	130.42	1.92
6.	Survey Craft	1089	26.7.80	30.10.82	31.8.81	31.1.84	371.66	331.35	40.31
7.	Survey Craft	1090	18.2.81	24.10.83	31.12.81	31.10.84	369.23	341.92	27.31
8.	Survey Craft	1091	18.2.81	10.8.83	30.4.82	23.6.84	371.99	325.03	46.96
9.	Survey Craft	1092	18.2.81	25.5.83	31.8.82	31.3.84	357.03	313.55	43.48
10.	Seaward Defence Boats	1093	29.5.82	17.1.84	31.10.84	26.2.85	634.02	294.92	339.10
11.	Seaward Defence Boats	1094	8.9.82	17.4.84	28.2.85	10.7.85	608.30	270.18	338.12
12.	Seaward Defence Boats	1095	8.9.82	15.11.84	31.7.85	15.1.86	620.86	276.85	344.01
13.	Landing Craft Utility MK-III	1096	23.2.83	10.10.84	31.12.84	18.7.86	734.72	455.74	278.98
14.	Landing Craft Utility MK-III	1097	23.2.83	24.11.84	30.6.85	18.10.86	750.55	498.11	252.44
15.	Landing Craft Utility MK-III	1098	23.2.83	22.7.85	31.12.85	10.12.86	738.43	474.71	263.72
16.	Landing Craft Utility MK-III	1099	23.2.83	29.9.85	30.6.86	25.3.87	752.71	442.89	309.82
17.	150 Men Ferry Craft	1124	24.2.84	22.7.85	31.5.85	19.2.86	127.12	125.33	1.79
18.	150 Men Ferry Craft	1125	24.2.84	29.9.85	30.6.85	27.3.86	130.62	127.23	3.39
19.	150 Men Ferry Craft	1126	24.2.84	10.2.86	31.7.85	27.5.86	128.20	115.28	12.92
20.	150 Men Ferry Craft	1127	24.2.84	10.2.86	31.8.85	23.7.86	128.89	126.53	2.36
21.	150 Men Ferry Craft	1129	28.9.85	25.8.86	31.3.87	17.12.86	150.79	139.01	11.78
22.	10-T Bollard Pully Tug	1130	20.9.86	29.2.88	30.6.88	30.3.88	238.82	217.47	13.35
23.	Porting Vessels	1148	NA	NA	31.8.90	30.10.91	1564.01	439.56	624.45
24.	Porting Vessels	1158	NA	NA	29.2.91	30.1.92	4040.34	2628.28	1412.06
25.	Tug	1167	NA	NA	15.5.90	21.2.92	255.34	216.88	38.46
4 OTHER VESSELS									
1.	Exploratory Fishing Vessels	1081	14.3.78	16.4.80	31.1.79	1.7.82	278.03	262.78	15.25
2.	Exploratory Fishing Vessels	1082	14.3.78	19.5.81	31.7.79	10.10.83	313.93	292.77	21.16
3.	Exploratory Fishing Vessels	1085	14.3.78	7.3.81	30.9.79	21.3.83	298.84	278.87	19.97
4.	Exploratory Fishing Vessels	1086	14.3.78	22.11.80	31.10.79	22.12.82	297.41	281.64	15.77
5.	Jack-up Platforms	1120	N.A. sub-contract		1.7.83	24.4.84	30.58	25.42	5.16
6.	Jack-up Platforms	1121	N.A. sub-contract		1.9.83	11.10.84	30.58	25.00	5.58
7.	Pontoons	1100	20.3.81	N.A.	31.10.81	9.4.82	12.87	10.55	2.32
8.	Pontoons	1101	20.3.81	N.A.	31.10.81	9.4.82	12.87	9.16	3.71
9.	Pontoons	1102	20.3.81	N.A.	31.10.81	9.4.82	12.87	10.75	2.12
10.	Pontoons	1103	20.3.81	N.A.	31.10.81	9.4.82	9.49	8.24	1.25
11.	Pontoons	1104	20.3.81	N.A.	31.10.81	9.4.82	9.49	7.40	2.09

12. pontoons	1105	20.3.81	N.A.	-do-	9.4.82	9.49	7.11	2.38
13. pontoons	1106	20.3.81	N.A.	-do-	9.4.82	9.49	8.16	1.33
14. pontoons	1107	20.3.81	N.A.	-do-	9.4.82	9.49	8.24	1.25
15. pontoons	1108	18.8.81	N.A.	-do-	9.4.82	9.49	8.23	1.26
16. pontoons	1109	18.8.81	N.A.	-do-	9.4.82	9.49	8.64	0.85
17. pontoons	1110	18.8.81	N.A.	-do-	9.4.82	9.49	8.26	1.23
18. Mocambique Launches	1115	12.5.83	25.2.84	15.9.83	5.12.84	43.60	41.84	1.76
19. Mocambique Launches	1116	12.5.83	29.2.84	15.8.83	5.12.84	43.60	43.01	0.59
20. Mocambique Launches	1118	8.7.83	13.3.84	15.11.83	5.12.84	43.60	41.42	2.18
21. Mocambique Launches	1119	8.7.83	13.3.84	15.11.83	5.12.84	43.60	40.93	2.67
22. Mocambique Launches	1117	9.7.83	3.3.84	15.11.83	5.12.84	43.60	40.72	2.88
23. Mocambique Launches	1122	4.8.83	9.4.84	15.11.83	5.12.84	43.60	40.83	2.77
24. Mocambique Launches	1123	4.8.83	9.4.84	15.11.83	5.12.84	43.60	40.67	2.93
25. Off-shore Platform Supply	1112	3.3.84	3.6.85	25.10.85	7.2.86	596.87	621.07	(-)24.20
26. Cum Standby Vessels	1113	23.3.84	12.1.86	2.01.86	24.4.86	599.29	608.70	(-)9.41
27. OPSSV	1114	23.3.84	25.4.86	2.4.86	3.9.86	597.83	680.05	(-)82.22
28. 30-T Tugs for Madras	1132	30.12.85	22.7.86	1.06.86	4.10.88	439.69	440.37	(-)0.68
29. Port Trust	1133	30.12.85	18.9.86	1.06.86	26.11.86	437.03	439.70	(-)2.67
30. Tug	1134	7.10.86	5.12.86	3.11.87	28.4.88	560.71	579.70	(-)18.99
31. Mooring Vessel	1161	5.3.86	17.5.89	31.12.88	30.3.90	332.60	320.86	9.74

ERRATA

<u>Page</u>	<u>Reference</u>	<u>For</u>		<u>Read</u>	
vi	overview last line of subpara IV	(para 6.)		(Para 6.2)	
5	Para 5.1 2nd line from top	September, 1987		September, 1967	
28	Para 7.2-Table Profit/Loss as per account.	Year	Amount	Year	Amount
		-	(-)109.22	-	-
		1987-88	216.97	1987-88	(-)109.22
		1988-89	714.18	1988-89	216.97
		1989-90	1366.67	1989-90	714.18
		1990-91	2372.28	1990-91	1366.67
		1991-92	-	1991-92	2372.28
28	Profit (+)/ Loss (-) after tax	-	(-)118.38	-	-
		1987-88	304.40	1987-88	(-)118.38
		1988-89	541.93	1988-89	304.40
		1989-90	757.19	1989-90	541.93
		1990-91	1156.64	1990-91	757.19
		1991-92	-	1991-92	1156.64
