C.P.U. No. 58

COMMITTEE ON PUBLIC UNDERTAKINGS

(THIRD LOK SABHA)

THIRTY-SEVENTH REPORT

HINDUSTAN SHIPYARD LTD.

MINISTRY OF TRANSPORT AND AVIATION
(DEPARTMENT OF TRANSPORT, SHIPPING AND TOURISM)

LOK SABHA SECRETARIAT
NEW DELHI

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(THIRD LOK SABHA)

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**Elected w.e.f. 23-2-1966 in the vacancy caused by appointment of Shri Panampilli Govinda Menon as Minister.

† Elected with effect from 7-8-66 in the vacancy caused by the demise of Shri S.V. Ramaswamy. Shri S. V. Ramaswamy was elected w.e.f. 23-2-66 in the vacancy caused by the resignation of Shri Harish Chandra Mathur.

†† Elected w.e.f. 7-5-66 on the retirement of Shri Lokanath Mishra from Rajya Sabha on 2-4-1966.

‡ Elected w.e.f. 7-5-66 on the retirement of Shri T.S. Pattabhiraman from Rajya Sabha on 2-4-66.

§ Elected w.e.f. 18-5-66 in the vacancy caused on the resignation of Shri Abid Ali on 6-5-66.

¶Elected w.e.f. 18-5-66 in the vacancy caused on the resignation of Shri M. N. Govindan Nair on 6-5-66.

@Elected w.e.f. 18-5-66 in the vacancy caused on the resignation of Shri M. Govinda Reddy on 6-5-66.

INTRODUCTION

I, the Chairman, Committee on Public Undertakings, having been authorised by the Committee to submit the Report on their behalf, present this Thirty-Seventh Report on the Hindustan Shipyard Ltd., Visakhapatnam.

2. This Report is based on the examination of the working of the Hindustan Shipyard Ltd., upto the year ending 31st March, 1966. The Committee took the evidence of the representatives of the Hindustan Shipyard Ltd. on the 27th October, 1966 and of the Ministry of Transport and Aviation (Department of Transport, Shipping and Tourism) on the 21st November, 1966.

3. The Report was considered and adopted by the Committee on the 3rd March, 1967.

4. The Committee wish to express their thanks to the officers of the Ministry of Transport and Aviation (Department of Transport, Shipping and Tourism) and the Hindustan Shipyard Ltd. for placing before them the material and information that they wanted in connection with their examination. They also wish to express their thanks to the non-official organisations/individuals who, on request from the Committee, furnished their views on the working of the Corporation.

5. The Committee also place on record their appreciation of the assistance rendered to them in connection with the examination of audit paras pertaining to the Hindustan Shipyard Ltd. by the Comptroller and Auditor General of India.

NEW DELHI;
March 3, 1967
Phalguna 12, 1888 (*S*)

D. N. TIWARY,
Chairman,
Committee on Public Undertakings.

I

INTRODUCTORY

A. Historical Background

The idea of establishing a shipbuilding yard in India to build modern ships was conceived almost simultaneously with the formation of the Scindia Steam Navigation Company Limited in 1919. But it did not materialise till the end of thirties because the Company had to overcome a number of problems which kept them fully busy. In 1940, Shri Walchand Hirachand, the then Chairman of the Scindia Steam Navigation Company got various sites in Calcutta and Visakhapatnam examined by Sir Alexander Gibb & Partners, a reputed firm of construction engineers in U.K., for establishing a modern shipyard. After examining in detail the principal requirements necessary for the location of a shipbuilding yard, Sir Alexander Gibb and Partners recommended the present site which met the varied requirements to a very marked degree.

2. The Shipbuilding yard at Visakhapatnam is the only major one of its kind in the country occupying a site of seventy-two acres of land. The foundation stone of the Shipyard was laid on the 21st June, 1941 by Dr. Rajendra Prasad, the then President of the Indian National Congress. The keel of the first ocean going vessel was laid in June, 1946 and the first 8,000 tonner steamship "Jalausha" was launched in March, 1948 by late Shri Jawaharlal Nehru.

3. By 1949 the Scindia Steam Navigation Company Ltd. found the Shipyard to be a serious financial problem and approached the Government of India for taking it over. The affairs of the Hindustan Shipyard came up for examination by the Estimates Committee in 1950-51. In para 91 of their 1st Report, the Committee recommended its being taken over in partnership with the Scindia Steam Navigation Company Ltd. The Committee also suggested that the project should be given a high priority in the country's development schemes.

4. Consequently on the 21st January, 1952, a private limited company known as the Hindustan Shipyard Ltd. was formed which took over the Yard and its management in March, 1952. Initially two-thirds of the share capital of the company was held by the Government of India and the remaining one-third by the Scindia Steam Navigation Company Ltd. In July, 1961 the shares held by the Company were also acquired by the Government of India and since then the Hindustan Shipyard is fully owned and managed by the Government of India.

5. The working of the Hindustan Shipyard Ltd. was examined by the Estimates Committee in 1954-55 and their observations were included in the Fourteenth Report of the Estimates Committee (First Lok Sabha). Government's replies to the recommendations contained in the Fourteenth Report are incorporated in the Second Report of the Estimates Committee (Second Lok Sabha). The working of the Shipyard was again taken up for examination by the Estimates Committee in 1960-61 and their observations were included in the Hundred and Sixteenth Report of the Estimates Committee (Second Lok Sabha). Government's replies to the recommendations contained in the Hundred and Sixteenth Report are incorporated in the Tenth Report of the Estimates Committee (Third Lok Sabha).

B. Foreign Collaborators and Consultants

6. Soon after its take-over in 1952, the Shipyard entered into an agreement with a French firm *La Societe Annonyme Des Ateliers et Chantiers de la Loire,* for technical aid in the management and operation of the Yard. It was, however, found that benefits derived from the collaboration arrangement were not commensurate with the long tenure of the consultancy arrangement or with the large sums paid as fees for the purpose and therefore the collaboration agreement was terminated in 1958. In the same year, when the Shipyard undertook to build Lubecker type of ships, it entered into an agreement for two years with M/s. Lubecker Flenderwerke of West Germany for the purchase of design and drawings. Under this agreement a German expert was also deputed to the Shipyard to assist in the construction of ships built to the German design. He was retained in the service of the Shipyard till 1960. For the next four years, the Shipyard managed its affairs without any consultant.

7. At a meeting of the Board of Directors held on the 24th March, 1964, the Managing Director of the Hindustan Shipyard put up a proposal for increasing the annual production in the Shipyard to 6 ships of 12,000 DWT each from 1967-68 onwards. The implementation of his proposal required considerable reorganisation of the lay-out and streamlining of the procedures of the Shipyard. The Managing Director also pointed out that, in view of the shortage of suitable officers for this purpose, this task could be performed either by engaging a firm of consultants or by creating a separate section by recruiting a few suitable officers for this purpose. The Board accepted the proposal of the Managing Director and constituted a Directors' Committee on the 22nd May, 1964 consisting of Rear Adm. T. B. Bose, Rear Adm. Daya Shankar, Rear Adm. S. M. Nanda and Shri H. C.

Raut, Managing Director to look into the requirements of the Shipyard. That Committee examined an offer received by Rear Adm. Daya Shankar from Messrs. Production Engineering Ltd., U.K. and the Board approved the appointment of that firm as consultants at their meeting held on the 13th August, 1964. At this meeting Rear Adm. Daya Shankar disclosed his likely interest in M/s. Production Engineering Ltd. under section 299 of the Companies Act and did not participate in the voting as he was to enter into a collaboration arrangement with the firm.

8. The Production Engineering Ltd., U.K. were to advise the Hindustan Shipyard on a general review of organisation, production and material control, yard lay-out, etc. on a fee of £800/- sterling payable in London plus air-fare for London-Visakhapatnam-London, and a further sum of Rs. 2,600/- to cover the expenses of their engineer in India. The Ministry of Transport was requested on 7-9-1964 to sanction the foreign exchange amounting to £ 800/- payable to the U.K. firm but this was not sanctioned.

9. In the first week of December, 1964, the Chairman forwarded to the Managing Director a letter received from Messrs. Daya Shankar & Associates under the signature of Rear Adm. Daya Shankar offering their consultancy services in collaboration with the Production Engineering Group, U.K. After a good deal of correspondence and discussion with M/s. Daya Shankar & Associates and after ascertaining their terms and fees, the Managing Director placed the offer of the firm before the Board of Directors on the 18th May, 1965. The firm demanded a minimum fee of Rs. 1.38 lakhs (including £ 3250/-) to Rs. 2.00 lakhs (including £ 6000). The exact amount was to be determined after the survey. On the suggestion of one of the Directors, Shri S. M. Wahi, the Board decided to call for quotations from foreign consultants also for the purpose of comparison. Enquiries were sent to Indian Embassies in 6 countries, *viz.*, U.K., West Germany, Poland, Yugoslavia, Italy and Japan, requesting them to let the Shipyard know the addresses of competent firms of consultants. Eventually 30 firms in those countries were asked to quote their terms for consultancy services on the basis of the scope of work indicated by Messrs. Daya Shankar & Associates.

10. At their meeting held on the 6th July, 1965, the Directors expressed dissatisfaction at the delay in appointing the consultants but decided to wait for the response to their enquiries. At the meeting of the Board held on the 10th August, 1965, the matter was again raised. Rear Adm. S. M. Nanda, Managing Director, Mazagon Docks Ltd., informed the Board that the Mazagon Docks Ltd. was also thinking of engaging consultants and suggested that there might be some economy if both Mazagon Docks Ltd. and Hindustan Shipyard engaged the same firm of consultants. Later on Adm. Nanda informed

the Board that there might be some delay in their arriving at a decision and recommended appointment of Messrs. Production Engineering Ltd. with association of Messrs. Daya Shankar & Associates.

11. A comparative statement of the quotations received from the various foreign firms in reply to Hindustan Shipyard's enquiry along with a proposal to appoint Messrs. Daya Shankar and Associates as consultants was put up to the Board at their meeting held on the 28th October, 1965. Of the 30 firms contacted, only six firms evinced interest but none indicated their fees and other terms with any definiteness. They required spot study of the conditions prevailing in the Shipyard by their personnel at the Shipyard's cost before they offered their quotations. Subsequently, two more offers—one from Mitsubishi Heavy Industries, Japan and other from Sir Bruce White, Wolfe Barry & Partners (in association with Messrs. Production Engineering Ltd., U.K.) were received. The former quoted Rs. 1 lakh (inclusive of 50% foreign exchange in U.S. Dollars) involving 24 expert weeks and the latter quoted Rs. 6.35 lakhs (inclusive of a foreign exchange of Rs. 1,30,000 in pound sterling). Thus, the offer of Messrs. Daya Shankar & Associates was the lowest, considering the scope of services offered. Accordingly, the Board approved the appointment of Messrs. Daya Shankar and Associates as consultants.

12. The Ministry of Transport was requested on the 12th November, 1965 to sanction the foreign exchange (£ 6000) included in the total fee of Rs. 2 lakhs payable to Messrs. Daya Shankar and Associates. Government's sanction was issued on the 21st January, 1966.

13. On the 25th January, 1966, the Managing Director placed before the Board a letter of the same date received from Messrs. Daya Shankar and Associates. This letter laid down the scope and programme of work, total fee, terms of payment, etc., to which the Board agreed. The total fee payable to the consultants is Rs. 2 lakhs inclusive of £ 6,000 for 110 consultant weeks. In addition, the following expenses incurred by the consultants are to be reimbursed by the Shipyard:—

(a) Travelling and hotel expenses within India;

(b) Cables, telegrams or trunk telephone calls;

(c) Reproduction or printing of drawings or other documents.

The Shipyard is also expected to provide office accommodation and associated services on site and transport from residence to the Shipyard, free of cost. The assignment can be terminated at any

time upon one month's notice on either side. The Managing Director conveyed the acceptance of these terms in his letter dated the 25th January, 1966 addressed to the consultants.

14. With the appointment of M/s. Daya Shankar & Associates as consultants, much of the work regarding planning, organisation, development plans, etc. had been entrusted to that firm and it was clear that the Shipyard did not try to think why all such work should not be done by it.

15. During evidence the Managing Director stated that they themselves could do the job that had been entrusted to the consultants but the perspective of their approach would be limited while the consultants in general had knowledge of various shipyards all over the world. In reply to another question he said that the Shipyard was competent enough to carry on without the help of the consultants. When the Secretary of the Department of Transport & Shipping was asked to explain the reasons for appointing consultants for the job which the Shipyard could have done, he stated that the Ministry had to convince its associate Departments of the Government of India—Finance and Commerce—for foreign exchange, etc. and this needed someone to say forcefully what was lacking in the Shipyard.

16. During evidence the Secretary of the Ministry stated that the Planning Commission's directive was to develop indigenous talent and this was one of the reasons for the appointment of M/s. Daya Shankar & Associates. It was also added that Mr. Daya Shankar, a senior partner of the firm had several years of experience in production engineering as Director-General of Defence Production in the Ministry of Defence. Besides, the Production Engineering Ltd., U.K., with whom this firm had entered into collaboration arrangement, were stated to be well reputed consultants of long standing for many modern shipyards in the world.

17. *The Committee appreciate that to judge the efficiency of an organization or to suggest improvements therein, there is some advantage in having advice from outside experts especially when it is a new industry. But what is regrettable is that the Shipyard depended on its French and German (foreign) collaborators from 1952 to 1960 and all these years worked almost without a plan or a target. There was no serious effort made to improve its procedures and production processes during this period or thereafter.*

18. *The Committee agree that indigenous know-how and talent should be encouraged with a view to obviate dependence on foreign collaboration and consultancy services and therefore this firm had*

been selected. Nevertheless the course of events leading to the initial approval of appointment of M/s. Production Engineering Ltd. as consultants, the setting up of the firm of M/s. Daya Shankar and Associates and their appointment as consultants having collaboration arrangement with the same foreign firm, have not convinced the Committee about the merits of this appointment.

19. An important point to be noted in this connection is that the selection of an Indian firm of consultants has not resulted in saving foreign exchange but added to the burden. The Board of Directors preferred to have a firm of consultants and recommended in August, 1964 the appointment of M/s. Production Engineering Ltd. but Government did not sanction the foreign exchange of £800/- on account of shortage of foreign exchange and Rs. 2,600 to cover the expenses of their engineer in India. Later on, when in November, 1965, sanction for foreign exchange worth £ 6000 included in the total fee payable to M/s. Daya Shankar and Associates was sought, Government sanctioned the amount in January, 1966. Government's plea of not appointing M/s. Production Engineering Ltd. on the ground of shortage of foreign exchange does not seem tenable.

20. The Consultants' scheduled programme of work was as follows:—

1966	
Early February . .	Commence Work. Establish new schedule 15.
February/March . .	Preliminary Survey.
End March . . .	Submit Preliminary Survey Report.
April . . .	Commence detailed work.
August .	Mid term review.
September . . .	Complete Part I of the assignment.
January, 1967. .	Final Review.

21. Under the agreement, the fee of Rs. 2 lakhs was to be paid to the Consultants in monthly instalments between February, 1966 and January, 1967. The Consultants had submitted a Preliminary Survey Report on 31-5-1966 and thereafter two Progress Reports were submitted in July/August, 1966.

22. *It is seen from the above that there has been delay in the submission of reports as per programme of work. However, the fee becomes payable irrespective of the fact whether the Consultants did their job according to the schedule or not. The Committee feel that the fee payable should have been related to the progress of work. They, however, hope that the Consultants' advice would be available to the Shipyard on all the programmed aspects within the stipulated amount of fee.*

23. The initial agreement with the Consultants was for 110 consultant weeks which was expected to be over by December, 1966/ January, 1967. The Consultants had also offered consultancy arrangement on a long term basis on a fee of Rs. 1.20 lakhs per annum. No decision had been taken in this regard and the position was to be reviewed later.

24. During evidence the Managing Director stated that he would not consider it necessary to recommend the extension of their period of contract. However, if the Board of Directors or Government decide to continue their services he would have nothing to say.

25. As regards the contents and the quality of the reports submitted by the Consultants, the Managing Director stated in evidence that the reports had been useful to some extent. Those recommendations which were considered useful had been implemented. The Secretary stated in this connection that the Managing Director had his own views and he might not be quite satisfied with the reports of the Consultants. The Secretary added that the success of the consultancy arrangement would depend upon the co-operation between the management and the Consultants.

26. In this connection it is observed that Messrs. Daya Shankar and Associates have been entrusted with the following tasks:—

(i) Consideration of Plan Programme envisaged for the Third and the Fourth Five Year Plans;

(ii) Preparation of ship-construction schedule;

(iii) To evolve norms of production;

(iv) General reorganisation and streamlining of procedures, etc.

(v) Layout, machinery and manpower utilisation, extension of Jetty, etc.

27. The finalisation of the Development Programme for the Third Plan had been kept in abeyance by the Board of Directors till it was considered by the Consultants. The Consultants were appointed in January, 1966, *i.e.* towards the close of the Plan period and there-

fore it had not been possible for the Shipyard to obtain the advice of the Consultants before that period. The Development Programme for the Fourth Plan has also been referred to the Consultants. While it is admitted that the Consultants may suggest some improvement in respect of general reorganisation, streamlining of procedures, layout, machinery, manpower utilisation etc., it is doubtful as to how far it would be possible to implement their recommendations. For example, the Consultants suggested getting rid of the superfluous labour but the Shipyard could not implement this suggestion because of Government's labour policy. Moreover, during evidence the Secretary could not give any assurance to the Committee whether the recommendations of the Consultants would be implemented.

28. *The Committee feel that the manner in which a large number of items of work have been made dependent on the advice of the consultants, there is every likelihood of the unhappy experience with previous foreign consultants being repeated. The replies elicited during evidence also did not show much enthusiasm for implementation of the Third Plan Development programme by itself. The management also seems complacent. It has advanced no satisfactory explanation for non-finalisation of the Third Plan Development programme by itself. The management should take initiative to study its procedures and methods and effect improvements therein instead of depending on the consultants. If it lacks capable personnel there should be no hesitation in recruiting such persons even if it has to look for someone outside India.*

II

PRODUCTION

A. Production Capacity and Actual Production

29. The Hindustan Shipyard has at present four building berths for end-wise launching of ocean-going cargo vessels. During recent years general cargo ships of about 12,500 DWT are being constructed in these berths. The Shipyard proposes to build standard type of vessels of about the same tonnage with higher speed and different cargo handling arrangements during the Fourth Five Year Plan period. The Shipyard has also a small berth for constructing small vessels. As a matter of policy due to economic reasons the Shipyard has decided to stop building small crafts like tugs, motor launches, etc. and the berth is now being utilised for repairs of small crafts, such as, barges, launches etc.

30. The Shipyard had earlier set forth a target of achieving 50,000 to 60,000 DWT per annum by 1963-64 but later on revised the target to 35,000 to 40,000 DWT by the end of the Third Plan period. By doing so the Shipyard not only reduced the target, but also postponed the year of achieving the original target from 1963-64 to 1965-66.

31. The table below gives the approximate yearwise production as scheduled and actually achieved:—

Year	*DWT as scheduled	DWT as achieved	% of 3 to 2
(1)	(2)	(3)	(4)
	Second Plan		
1956—57 . .	19,060	15,330	80%
1957—58 . .	26,060	17,786	68%
1958—59 . .	18,000	7,197	40%
1959—60 .	17,000	18,255	107%
1960—61 .	23,500	9,582	34%

*Latest revised schedule.

(1)	(2)	(3)	(4)
	Third Plan		
1961—62 . .	19,000	31,385	164%
1962—63 . .	36,900	24,773	67%
1963—64 . .	36,870	24,788	67%
1964—65 . .	24,540	13,426	55%
1965—66 . .	49,080	38,123	77%

32. The Shipyard has stated that for a variety of reasons the schedules prepared by it had to be altered frequently with the result that it became rather difficult to say precisely what was the production planned by it in a particular year.

33. In the annual reports of the Shipyard for the years 1962-63 to 1965-66 it was stated that the shortfall in production was mainly due to inadequate supply of materials both indigenous and foreign. There was also delay in grant of import licences due to foreign exchange difficulties. During the present examination, the principal reasons for the wide variation between the production planned and achieved were stated to be as follows:—

(a) Planning of production was made on the basis of insufficient data arising from the fact that the Shipyard was still in the process of development.

(b) Assessment of efficiency was made erroneously at a higher point than was actually the case without taking into account of the following factors:—

(i) Inadequacy of layout.

(ii) Inadequacy of manpower both qualitative and quantitative.

(iii) Inadequacy of machines, most of which were old and outdated.

(c) Difficulties in the procurement of materials in time arising from various external factors.

34. When the Shipyard was asked in writing to explain whether these difficulties were not taken into account while laying down the production targets it was stated that while preparing the 13th Schedule of Ship Construction in March, 1964 these factors were brought to the notice of the Board as well as of the Government.

35. In another reply explaining the reasons for non-fulfilment of targets, the Shipyard has stated as follows:—

> "Originally when the target of 50,000/60,000 DWT per annum was set, it was done on the basis of certain assumptions concerning the extension of outfit accommodation, establishment of the Marine Diesel Engine factory in the country, rapid development of ancillary industries catering to shipbuilding, adequate flow of supply of shipbuilding steel from indigenous steel plants, availability of foreign exchange in good time etc. Unfortunately, however, in practice each one of these assumptions turned out to be erroneous for one reason or another."

36. *The Shipyard has been generally falling short of production targets. From the various replies given by the Shipyard, it is clear that the reasons for shortfall in production were not analysed till March, 1964 when the 13th Schedule was drawn up. Although the Shipyard had to be subsidised heavily during these years it seems that Government took no serious notice of the shortfall in production and allowed the Shipyard to run at a heavy loss. The Committee recommend that in future reasons for shortfall in production should be analysed and pointedly brought to the notice of government and the Board in the year subsequent to the shortfall.*

B. Value of Production

37. A statement showing the value of production during 1955-56 to 1965-66 is given below:—

(Rs. in lakhs)

Year	Ship construction	Ship repair	Capital and other items	Total
1	2	3	4	5
1955-56	237·16	1·04	9·72	247·92
Second Plan				
1956—57	290·93	0·06	7·05	298·04
1957—58	333·91	0·14	9·26	343·31
1958—59	333·73	0·98	10·65	345·36
1959—60	389·62	0·51	11·35	401·48
1960—61	456·33	0·02	9·45	465·80
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1	2	3	4	5
	Third Plan			
1961—62 . . .	448·67	0·19	12·57	461·43
1962—63 . . .	483·68	0·93	13·61	498·22
1963—64 . . .	459·78	1·67	13·60	475·05
1964—65 . . .	417·52	2·28	10·09	429·89
1965—66 . . .	524·90	2·86	12·41	540·17
Total during Third Plan period:				2404·76
Average annual production during the Third Plan period:				Rs. 480·95 lakhs

38. The value of production is subject to variable factors such as rise in prices and may not therefore be a proper yard-stick to judge efficiency. Even so, the figures shown in the above table are not encouraging. The total value of production during the Third Five Year Plan was Rs. 2404.76 lakhs, which works out to Rs. 480.95 lakhs per year on an average. The value of production during the last year of the Second Plan was Rs. 465.80 lakhs which indicates that there has been a little increase in the value of production during the Third Plan period but that much perhaps is attributable to rising prices.

39. Not only has the value of production failed to show any noticeable increase, there have been variations between value of production planned and the value achieved. The production budget for the year 1963-64 envisaged a total turn-over of Rs. 503·54 lakhs involving work on 12 ships while the actuals amounted to Rs. 461·45 lakhs. In 1964-65 also against the budget estimate of Rs. 522:01 lakhs in respect of production, *i.e.* ship construction and ship repairs, the actual production for the year amounted to Rs. 419·80 lakhs. In 1965-66 too as against estimated production of Rs. 546·50 lakhs, actual production was Rs. 527.76 lakhs. The shortfall was stated to be due to delay in receipt of steel and imported materials.

40. In the Annual Reports of the Directors it has been stated that the Shipyard has been making some profit due to undertaking ship-repairing and other miscellaneous works. In reply to a question the management has stated it could not undertake more ship-repairing work because of non-availability of dry-docking facilities and that it would be able to undertake increased quantum of ship-repairing work as and when the construction of the proposed Dry Dock is completed

41. *The Committee find that shortfall in production is generally attributed by the Shipyard to the unsatisfactory flow of materials. If flow of materials is taken as the major factor, it is surprising that no effective steps were taken to ensure or maintain the flow of materials. On the other hand as facts show the position was allowed to remain stagnant or even deteriorate year after year. It seems that the administrative Ministry also did not exercise effective control over the affairs of the Shipyard in this regard. Concerted efforts should be made to improve the production performance of the Shipyard.*

C. Construction Period

42. A statement showing the time taken at different stages of construction from keel-laying to delivery to build repeat vessels of different types is given below:—

Ship No.	Hull Construction (Keel laying to Launching)		Fitting out (Launching to Delivery)		Total	
	Months	*Days*	*Months*	*Days*	*Months*	*Days*
Ships delivered between 1955 *and* 1961						
1. VC. 116	12	15	10	0	22	0
2. VC.117	17	8	8	7	26	17
3. VC.119	22	5	6	4	28	9
4. VC.121	15	4	7	8	22	12
5. VC.122	15	6	7	6	22	12
6. VC.118	18	9	7	1	25	10
7. VC.120	14	1	10	1	24	2
8. VC.137	20	0	9	2	29	2
9. VC.139	10	1	11	2	21	2
10. VC.142	12	2	10	5	22	7
11. VC.145	14	9	12	1	26	10
12. VC.146	15	8	12	0	27	8
13. VC.148	15	2	12	2	27	4
Ships delivered during 1962 *and* 1963						
14. VC.147	16	5	11	3	27	8
15. VC.149	19	9	11	0	30	9
16. VC.150	18	8	12	6	30	14
17. VC.151	18	5	12	5	30	10
18. VC.152	15	4	12	7	27	11
Ships delivered during 1964, 1965 *and* 1966						
19. VC.153	17	6	19	4	36	10
20. VC.154	21	2	18	19	39	21
21. VC.155	22	22	21	8	44	0
22. VC.156	26	9	15	26	42	5
23. VC.157	26	5	12	25	39	0
24. VC.158	24	26	10	2	34	28

43. The above statement shows that during the years 1955 to 1963 there was no reduction in the total time taken in the construction of repeat vessels and during the years 1964 to 1966 the position worsened and longer time was taken in construction.

44. In reply to a written question the Shipyard had stated that "time taken for the construction of repeat vessels of a series is progressively reduced with the experience gained by our personnel." When the management was asked to substantiate this statement by their performance, it had been stated that the variation in the time taken for repeat vessels had preponderently been due to difficulties in the flow of materials, which in almost every case had more than offset the small saving in time effected as a result of experience gained.

45. *The Committee regret to note that the information supplied by the Shipyard that the "time taken for the construction of repeat vessels of a series is progressively reduced" was misleading inasmuch as actually no reduction in construction time occurred.*

46. The following table shows the time taken by the Shipyard in constructing 8000 DWT Cargo Vessels under the management of the Scindia Steam Navigation Co. Ltd.:—

Name of Ship	Date of laying keel	Date of delivery	Time taken	
			*M*onths	*D*ays
1. Jalapadma	26-1-1950	18-1-1951	11	23
2. Jalapalaka	26-1-1950	3-4-1951	12	8
3. Bharatmitra	28-9-1950	2-7-1951	9	4
4. Jagrani	9-5-1951	9-6-1952	13	—
5. Jalapratap	9-5-1951	9-8-1952	15	—

47. In March, 1952, Government took over the management of the Shipyard and the construction of the first two vessels of 8000 DWT, the keels of which were laid on 21st July, 1952, took 24 months and 25 months respectively. As will be seen from the statement given in para 46 above, the Shipyard has not been able to improve its performance over that achieved prior to nationalisation. In fact the position has deteriorated after the year 1952.

48. In reply to a question, the Shipyard has stated that the construction of 12000 DWT cargo ship from keel laying to delivery takes 14 months in a U.K. yard and 6 months in a Japanese yard. M/s. Daya Shankar & Associates, Production Consultants to the Hindustan Shipyard, have in their survey report stated that the construc-

tion of 12200/18380 DWT cargo liner takes 6 months in a Japanese yard and 5 months in a U.K. yard.

49. *The Committee feel that this state of affairs in the Shipyard should not be allowed to continue. They suggest that the organisational set up of the Shipyard should be reviewed thoroughly. The time taken in the different stages of construction should also be critically analysed with a view to fix standards and substantially reduce the time taken.*

50. In U.K. and Japan, cargo vessels of the type built by Hindustan Shipyard remain in the building berth for a period of 3 to 4 months. The Shipyard had stated that the normal berth occupation period for the type of vessels built by it was 10 to 12 months. It was, however, noticed that most of the ships built during recent years remained in the building berths for 15 to 23 months. When asked to clarify the point, the Shipyard stated that the normal berth occupation period should be 10 to 12 months, but for reasons beyond its control (*e.g.* delayed receipt of material) this period has far exceeded.

51. *A comparison with the time taken in the berths in U.K. and Japan shows that the performance of the Shipyard in this respect is poor. The Committee appreciate that delayed receipt of materials resulted in low production of the Shipyard to some extent. It is however, necessary that the procurement of materials and production processes in the Shipyard should be streamlined and output or productivity per man increased with a view to reducing the berthing period.*

D. Ship Construction Schedule

52. A statement showing the number of times the schedules had to be revised during the period 1956-57 to 1965-66 for each ship is given below:—

Sl. No.	Ship No.	No. of times schedules revised
1	2	3
1	VC.118	2
2	VC. 119	2
3	VC.120	4
4	VC.121	5
5	VC.122	5
6	VC.123	No schedule was prepared.
7	VC.124	2

1	2	3
8	VC. 125	8
9	VC.134	7
10	VC. 135	4
11	VC. 136	13
12	VC. 137	7
13	VC.139	6
14	VC. 142	6
15	VC. 145	5
16	VC. 146	6
17	VC. 147	7
18	VC. 148	6
19	VC. 149	7
20	VC. 150	7
21	VC. 151	8
22	VC. 152	8
23	VC. 153	10
24	VC. 154	5
25	VC. 155	6
26	VC. 156	6
27	VC. 157	7
28	VC. 158	7
29	VC. 159	7
30	VC. 160 . . .	7
31	VC. 161	7
32	VC. 162 to 167 . . .	4

53. The above statement shows the extent to which the schedules for building ships have been revised. In reply to a question it has been stated that the basic difficulty in regard to the system of scheduling is the absence of norms. The Shipyard has been building various types of ships, with a constant variation in techniques and methods such as switching over from rivetting to welding, increasing adoption of pre-fabrication methods, etc. with the result that it has not been able to establish any norm. Now the Shipyard wishes to establish the norms from the data made available to it by the collaborators of its Consultants, *i.e.*, Production Engineering Ltd., U.K. As regards the manner of drawing up schedules, it is stated that a Master Schedule is drawn up on receipt of an order on the basis of the data that is available to it at that time. Detailed

scheduling is done on finalisation of detailed specifications by breaking up the Master Schedule for each phase of work. When the flow of materials is unsatisfactory and makes it impossible to keep the schedule, the schedule is changed. The Shipyard has admitted that this system of scheduling is undoubtedly unsatisfactory but in the absence of norms it has not found any other better way of scheduling.

54. *The Committee do not see any reason why even* 15 *years after nationalisation, the Shipyard has not been able to prepare schedules based on basic norms. The reasons put forward by the Shipyard for not laying down the norms are not convincing. The Committee suggest that if the necessary data supplied by the consultants is not comprehensive it should be collected and norms laid down without further delay.*

55. A statement showing the number of ships proposed to be built during 1964 to 1970 according to different schedules is given below:—

	As per 13th schedule (March, 1964) No. of ships	As per 14th schedule (August, 1965) No. of ships	As at present envisaged No. of ships
1964—65	3	..	..
1965—66	4	4	..
1966—67	5	4	2
1967—68	6	6	4
1968—69	6	6	5
1969—70	6	6	6

56. While furnishing the preliminary material the Shipyard had stated as follows:—

> "We started a rudimentary and experimental system of scheduling for our production sometime in the year 1956-57. For a variety of reasons the schedules prepared by us had to be altered frequently from time to time with the result that it becomes rather difficult to say precisely what is the production planned by us in a particular year."

57. During evidence the Managing Director stated that the optimum target of constructing six ships a year was first visualised in the 13th Schedule of ship construction. But the optimum capacity of the Shipyard for that had not been established so far.

58. In regard to the implementation of the 13th Schedule, the Shipyard had stated earlier:—

> "The implementation of this schedule was, however, subject to the fulfilment of a number of conditions. These conditions include supply of steel in sufficient quantities and in the sequence required, release of foreign exchange in bulk shipwise and countrywise as required by us in good time, implementation of the development programme formulated for the Third and Fourth Five Year Plans, completion of the Drydock Project by 1967-68, extension of the Fitting-out Jetty towards the West by acquiring the Naval Jetty by the end of 1967, establishment of marine diesel engine factory in the country, flow of adequate orders in good time, etc. etc. Most important of all was the overall reorganisation of the Shipyard which envisages reorientation of the layout, including certain workshops, offices, etc., rationalisation and streamlining of procedures, pay scale, introduction of incentive schemes and establishment of a workshop for the manufacture of suitable ship fittings and equipment."

59. When the Shipyard was asked to explain if these difficulties were not visualised earlier, it was stated:—

> "When the optimum production of six ships a year was planned in the 13th Schedule, apart from the difficulty in achieving streamlined flow of materials—which is a common requirement for all schedules past and present—the difficulties in relation to the inadequacies in layout etc., for this optimum target got highlighted."

60. From the foregoing it will be noticed that in March, 1964 the Shipyard planned to produce 6 ships a year from 1967-68 onwards. The fulfilment of this programme was based on the completion of several items of work enumerated above. The programme of building 6 ships a year by 1967-68 has been changed and production at this level is now expected only in 1969-70.

61. *It is clear from the above that the Shipyard drew up the schedules without benefiting from its past experience or taking into account all the factors which might affect their implementation. It appears to the Committee that the management's approach has not been sufficiently realistic with regard to availability and adequacy of ship-building material and its own capacity. The Committee feel concerned not only with frequent changes of schedules which hamper smooth production but also the consequent discouragement to buyers in placing orders on the Hindustan Shipyard. A schedule that*

needs to be revised every year has hardly any meaning. The Committee recommend that while preparing schedules in future all the necessary factors should be considered carefully and once a time-schedule for constructing a ship is prepared, it should be adhered to unless extraordinary reasons beyond the control of the management prevail.

E. INS-Darshak

62. It has been observed that the Shipyard took about 7 years to construct a naval survey vessel, INS-Darshak. The keel for the vessel was laid on 15th October, 1957 and it was scheduled to be completed by December, 1959. Actually it was delivered on 28th December, 1964. The vessel is stated to be a complicated one for the construction of which the Shipyard did not have the requisite expertise at that time. The order was taken on the advice of the French Consultants who were at that time virtually the Technical Managers of the Shipyard. The basic designs were prepared by the French Consultants and when the general consultancy arranged with the French firm terminated in 1958 in rather strained circumstances, their interest in this vessel diminished which led to a lot of delay and difficulties. Eventually the construction of this vessel had to be completed by taking certain special measures as the detailed working drawings were not furnished by the French Consultants and other sub-contractors.

63. The time taken during the various stages in the completion of the vessel is given below:—

Negotiations with NHQ

April, 1956—The Shipyard wrote to Naval Head Quarters for preparing hull specifications jointly.

June, 1956—Differences arose between M/s. A. C. L., the Navy and the Shipyard as to the responsibility of M/s. A. C. L. for preparing detailed drawings.

September, 1959—Shipyard represented that it was finding great difficulty in formulating drawings and progressing work due to differences in Naval and Merchant ship construction drawings. NHQ wanted the plans to be checked by visiting the site, but the Shipyard did not consider it necessary at that stage.

July, 1961—NHQ and Shipyard officers held a meeting and cleared all the outstanding points. The Shipyard and the NHQ blamed each other through correspondence for the delay that had taken place.

Negotiations with M/s. A. C. L., Paris

December, 1959 } Shipyard wrote to the A. C. I. for supply of
June, 1960— } drawings needed.

April, 1961—A. E. G. wrote to A. C. L. stating that their experience with the Darshak was so bad that they did not feel that they could do any more than their obligations because there were frequent changes of plans and the design work involved was so large that it was impracticable for them to supply the drawings in the manner required by A. C. L.

July, 1961—Shipyard adhered to its view that it needed detailed drawings showing the exact run of each cable and the exact geometric situation of these runs in relation to ship structure. No progress was, therefore, possible.

July, 1962—Shipyard sent a statement headed "*Modus Operandi*" indicating to A. E. G. the exact manner in which drawings were to be prepared. A. E. G. reiterated that the production of such drawings was not only difficult but also totally unnecessary.

64. A Committee consisting of Rear Admiral T. B. Bose, Rear-Admiral D. Shankar and another officer from the Navy was set up in June, 1962 to investigate into the delayed delivery of this vessel and to suggest methods of its expeditious completion. The Committee observed that the principal causes for the delay were:—

(a) The failure of A. C. L. to discharge their obligations.

(b) The failure of A. C. L. personnel in the Shipyard to keep Shipyard informed of progress of design etc. upto July, 1958, and to hand over properly prior to their departure.

(c) The lack of understanding in the Shipyard of how a ship of this type ought to be built.

(d) The failure of the Shipyard to accept any of the suggestions made by A. C. L. or A. E. G. regarding the expeditious completion of the ship.

(e) The unnecessary insistence on the preparation of detailed co-ordinated drawings for all electrical and other installations.

65. The Bose Committee suggested appointment of a full-time officer with no other responsibility than that of completing Darshak as soon as possible. On the basis of the suggestions made by that Committee, the Shipyard with the assistance of the Navy, undertook preparation of drawings and completion of the construction of the vessel. The vessel was eventually delivered to the Navy on 28th December, 1964.

66. During evidence the Secretary of the Ministry stated that the Shipyard's management in 1953 thought that it could undertake the construction of this highly specialised naval vessel, but later experience showed that it was a mistake on its part to have undertaken this assignment. Asked whether the Ministry had given any direction to build this vessel, the Secretary stated that the Ministry had consulted the then management and the latter was ambitious to launch on the construction of this vessel.

67. *The Committee are surprised to note that the Shipyard accepted the order for constructing this vessel with the approval of the administrative Ministry as early as* 1953 *when it had just been taken over from the Scindia Steam Navigation Co. Ltd. While the Committee appreciate the ambition of the then management to launch on the construction of a survey vessel, they cannot understand the failure of the management to equip itself for the work for which it did not have the necessary technical know-how.*

68. The Bose Committee had observed that although the collaboration agreement between the Shipyard and M/s. A. C. L. was terminated in July, 1958 and a separate agreement was subsequently entered into by the Shipyard with the same firm for the design and development work on "Darshak", there was no proper handing over of the work already done and information regarding this vessel was not fully known to anybody in the Yard after the French Officers had left. The Committee further observed that the Shipyard expected A. C. L. Design Agency to do all the detailed drawings that would be necessary for hull construction, machinery and electrical installations. In July, 1962, the Shipyard sent a statement *"Modus Operandi"* intended to indicate to A. E. G. the exact manner in which drawings were to be prepared. This, according to that Committee, was an extraordinary document which no firm in this world could meet, no matter how hard they tried. The Managing Director has stated that the above comment of the Committee is a matter of opinion, with which the Shipyard did not agree.

69. In reply to a question as to why the Shipyard relied on A. C. L. Design Agency, the Shipyard has stated that since the con-

tract for Darshak was already halfway through at the time the main consultancy arrangement was terminated, it had no alternative except to continue the arrangement for getting all the plans for this vessel finalised, although the relations had become somewhat strained with respect to the main contract.

70. *From the foregoing it is noticed that for about 7 years from 1956 onwards protracted negotiations went on between the Shipyard, N.H.Q. and M/s. A.C.L/A.E.G. for preparation of detailed drawings. On the basis of the available material and evidence tendered before them, the Committee agree with the observation of the Bose Committee that one of the reasons for the delay in completion of the vessel was unnecessary insistence on the part of the Shipyard for preparation of detailed co-ordinated drawings for all the electrical and other installations. By doing so, valuable time was lost in unnecessary negotiations and diversion of energies which could have been fruitfully utilised for construction of standardised cargo vessels. Further, even when the construction of Darshak was in progress, the management did not keep itself informed about the work and failed to take charge of designs etc. when the French experts left the Yard. It again entered into an agreement with the same firm with whom their earlier experience had not been happy. This shows that even after making the initial mistake of undertaking the construction of a complicated type of vessel, the Shipyard did not fully realise its responsibility of completing the vessel expeditiously. It seems that the Ministry also did not take any special measures to expedite the construction. The Committee are not happy over the whole affair and hope that Government and the Shipyard will take necessary measures to perfect construction of standard vessels before accepting assignments of a complicated nature.*

F. Productivity

71. A statement showing the manpower and productivity of Hindustan Shipyard during the last five years is given below:—

Year	Direct (only direct labour is given)	Supervisory (Technical Officers & Staff)	Office (administrative Officers and Staff)	Total	Production in D.W.T.	D.W.T. per man
1960—61 . .	3401	464	513	4378	9,582	2·19
1961—62 . .	3312	469	547	4328	31,385	7·25
1962—63 .	3454	478	567	4499	24,773	5·50
1963—64 . .	3492	505	702	4699	24,788	5·27
1964—65 . .	3511	530	728	4769	13,426	2·81

72. The Shipyard has not been able to give information about the productivity of similar yards abroad. A non-official has stated that the present productivity of similar yards in U.K. is 63 DWT per man while in Japan it is about 200 DWT per man. The Managing Director admitted that the productivity of the Hindustan Shipyard was very low as compared to that of foreign shipyards. When the Managing Director was asked to state what steps they had taken to improve the productivity, he gave the following reply:—

> "Development of the workshop, in respect of machinery, lay-out, water frontage, graving dock, wet basin—all that is being looked into. Streamlining of the building berth is being evolved in a different way. The purchase procedure of materials is being changed in a different way. All these are being looked into simultaneously."

73. *The Committee feel concerned to note that the productivity per man at the Shipyard should compare so unfavourably with the foreign Shipyards. It is unfortunate that the Shipyard should have failed to improve its productivity since it was set up in 1952. The country needs more and more tonnage. The Shipyard should make strenuous efforts to increase its productivity in the coming years so as to keep pace with the performance of the foreign shipyards.*

G. Overhead Expenses

74. A statement showing the element of overhead expenses to the total cost of construction of vessels during the last five years is given below:—

Year and V.C. No.	DWT	Total cost of construction	Overhead expenses	Cost of Materials	(Rs. in lakhs) % of 4 to 3
1	2	3	4	5	6
1961—62					
VC 146	9500	190·80	40·18	125·53	21·06
VC 148	9500	187·61	40·01	124·12	21·32
1962—63					
VC 147	12300	186·04	41·70	122·47	22·42
VC 149	12300	176·39	37·61	116·69	21·33
VC 150	12300	174·17	36·15	116·33	20·75

1	2	3	4	5	6
1963—64					
VC 151 .	12300	174·01	35·29	115·89	20·28
VC 152 .	12300	176·46	34·55	118·24	19·58
1964—65					
VC 136 . .	611 (Naval Suvery Vessel)	225·08	57·22	127·19	25·42
VC 153 . .	12709	208·35	53·76	125·62	25·81
1965—66					
VC 154 .	12669	201·91	48·77	123·64	24·15
VC 155 .	12743	207·84	52·60	125·46	25·31
VC 156 .	12743	210·29	57·34	124·94	27·27

75. From the above table, it will be seen that the overhead expenses as a percentage to total cost of construction of ships varied between 19.58 per cent and 22.42 per cent during the years 1961-62 to 1963-64. This percentage, however, increased during the years 1964-65/1965-66 and varied between 24:15% and 27:27%.

76. During evidence the Managing Director stated that the rise in overheads was due to increase in Employees' Provident Fund contribution and Dearness Allowance, *ex-gratia* payment to employees, interest on cash credit etc. He added that the overhead expenses which amounted to about Rs. 136 lakhs might rise upto Rs. 145 lakhs when the output increases to 6 ships a year, but when distributed over six ships, there would be substantial reduction in overhead expenses for each ship. In reply to a question it has also been stated that Shipyard started reviewing the position regarding overhead expenses from March, 1964.

77. *The Committee note that next to cost of materials, the overhead expenses constitute the largest single item in the total cost of construction of a vessel. While there has been a small rise in the cost of materials during the years* 1964-65 *and* 1965-66, *the rise in overhead expenses during this period has been abnormal. The Shipyard can economise in cost of construction by reducing its overhead expenses to the minimum. If, as stated by the Managing Director, the production of the Shipyard can be increased to 6 ships a year without any appreciable increase in overhead expenses as at*

present, there is evidently a considerable amount of under-utilisation of men and machinery at present. The Committee recommend that the management should direct its attention towards reduction in overhead costs.

H. Utilisation of Plant and Machinery —Section III 7 (i) of the Audit Report (Commercial), 1966.

78. Another reason for low efficiency of the Shipyard is stated to be the low efficiency and under utilization of plant and machinery. According to the Chief Shipyard Manager, 50 per cent of the plant and machinery is 20 years old with an efficiency of 15%, 25 per cent is 10 years old with an efficiency of 50% to 60% and the balance 25 per cent is below 10 years old with an efficiency of 60% to 75%. The utilisation of these machines is stated to be 30% which is half of the prescribed standard efficiency.

79. In a later reply, the Shipyard stated that the figure of 30 per cent utilisation was given on an *ad hoc* basis, as at that time it was difficult to obtain a rational basis for the figure. However, in a survey conducted in July, 1965 by the Institution of Work Study, Mussorie the utilisation of machinery was assessed at 43:4% + 5%. (95% confidence limits).

80. The Shipyard has stated that a major part of the machinery and equipment in the shops has become old and obsolete requiring early replacement, but the programme of replacement could not be implemented due to paucity of funds. Proposals for replacement of machinery during the Third Five Year Plan were made only in March, 1964 but a substantial portion of this had to be deleted in the final scrutiny. Replacements for most of the machines, which are too old, have now been provided in the Development Programme formulated for the Fourth Five Year Plan. In reply to a question, it has been stated that at present the impact of old machines on low productivity is not as significant as other major factors contributing to low productivity. It has been stated earlier that 50% of the plant and machinery is 20 years old with an efficiency of 15%.

81. *In view of this, the Committee are not convinced by the statement that at present the impact of old machines on low productivity is not significant. The Shipyard had not till recently made any investigation to assess the extent of low utilisation of machinery and the impact on low productivity due to the machinery being old and somewhat worn-out. The programme for replacement of old and worn out machinery was also not initiated in time. It is, therefore, not surprising that the Shipyard should have accumulated over a period of time old and worn-out machinery with very low utilisation. The Committee suggest adoption of a regular system of periodical assessment of machinery with a view to replacing inefficient and outmoded*

parts and machinery in time without allowing the efficiency of the Shipyard being impaired.

1. Maintenance of Log Books

82. The Audit has observed in Section III 7 (i) of the Audit Report (Commercial), 1966 that the Shipyard is not maintaining any log books indicating the details of utilisation, breakdowns and idle period of each type of machinery. In reply the Shipyard has stated that—

> "A record of breakdowns of machines is being maintained. As regards the record of utilisation of idle period of machines, we are aware that there is under-utilisation of machines and have in fact had on occasions explored possibilities of undertaking certain items of subsidiary structural work other than shipbuilding. The question of collecting data about machine utilisation as well as the scientific method of doing so has been receiving our attention for sometime and the most rational way of going about this matter has been referred to our Production Consultants."

83. During evidence the Managing Director stated that:

> "the existing break-down Forms 'A' and 'B' in conjunction with Cardex cards were thought to be the only things necessary to study the idle period due to breakdown. However, the matter is being studied now thoroughly and the question of load on the machine, the utility of the machine, and the idle period of the machine due to breakdown, shortage of material or inefficient man-handling are under scrutiny for the last one year or so."

The Audit pointed out that on the 20th January, 1966, the management informed them that the maintenance of the log books would not serve any useful purpose and it was considered not worth the trouble. The Managing Director expressed regret and said that the information was not given by a competent authority. When the Committee pointed out that the reply was sent by the Chief Accounts Officer and Financial Adviser of the Shipyard, the Managing Director replied that it was sent without bringing the matter to his notice.

84. *The Committee are surprised to note that the necessity of Maintenance of log books to find out the details of utilisation of machinery had never been considered till the Audit pointed it out. In fact the Managing Director was not aware of the reply sent by the Shipyard to the Audit until the point was raised during evidence. The Committee recommend that the system of maintaining log books for each type of machinery should be introduced forthwith and utilisation and optimum capacity of each machinery should also be determined to improve the efficiency of the Yard.*

J. Steel Scrap Accumulation

85. During 1963-64, the percentage of steel declared scrap to the total value of steel used ranged between 15.80% and 17.40% per ship with an average of 16.52% for five ships. During 1964-65 and 1965-66, average percentages of scrap accumulation were 16.75% and 18% respectively. The Shipyard has stated that the steel scrap in percentage terms is admittedly higher than normally expected in other shipyards abroad. Average percentage of scrap accumulation in Japan is stated to be of the order of 10 to 12 per cent. The management has given the following reasons for the high percentage of steel scrap accumulation in the Yard:—

(i) Inability of indigenous producers to supply the exact sizes of plates and sections in the required thickness, breadths and lengths.

(ii) Foreign supplies being determined by the availability of credit and the Shipyard being forced to accept whatever is supplied.

During evidence the Managing Director stated that credit for steel scrap was being taken on an estimated and lump sum basis instead of on the basis of actual weighment shipwise. Actual weighment is not done because several ships are constructed at a time and the separation of scrap for each ship at shop and scrap bins and their separate weighment requires some elaborate process. The Managing Director, however, admitted the merit of actual weighment of scrap shipwise. It was also stated that the present figure of 18 per cent of steel scrap was based on the weighment made at the time of selling the scrap for the year 1965-66 and not on the basis of actual steel scrap arisings. In this connection, the Audit drew the attention of the Committee to the observations of the Company Auditors made in their supplementary report on the accounts of the Shipyard for the year 1965-66 according to which the estimation of scrap arisings on an *ad hoc* basis instead of determining it by actual weighment could be one of the reasons for wide variation in scrap percentages in 1965-66 as compared with the figures of previous years.

86. *The Committee consider the present method of estimation of scrap accumulation unsatisfactory in as much as there is no means of knowing whether the scrap arisings are decreasing or increasing. It is surprising that all these years the Shipyard management was satisfied with random reckoning. In order to judge the efficiency of the production processes, it would be necessary to weigh the steel scrap shipwise and efforts should be made to bring down the percentage of steel scrapped to steel used.*

K. Orders for Shipbuilding

87. It is seen that since January, 1961, three vessels have been delivered to the Scindia Steam Navigation Co. Ltd. and the remaining 11 vessels to the Shipping Corporation of India. The Shipyard has at present orders on hand for building 10 vessels, all for the Shipping Corporation of India. As regards orders from private shipping companies, the Shipyard has stated that it has been receiving bulk orders from the Shiping Corporation of India well in advance and their orders are executed on 'First come first served basis.' The Ministry has stated that as the Shipyard was fully booked to capacity during the Third Plan period, some of the Indian shipping companies were permitted to purchase ships abroad. During the last three years, proposals worth Rs. 81 crores (at pre-devaluation rates) for purchase of ships from abroad materialised.

88. *The commercial interests of the Shipyard require that its ships should be patronised by Indian private shipping companies. The Shipyard plans to increase its production to 6 ships a year from 1969-70 onwards. This should enable it to procure some orders from the private shipping companies also.*

III

MATERIALS

A. Supply of Materials

89. Smooth flow of materials plays an important role in an assembly industry like the shipbuilding. Unfortunately, flow of materials has never been satisfactory in the Hindustan Shipyard and as a result it has all along failed to achieve its target of production. Main difficulties are stated to be experienced in obtaining foreign exchange. Uptil now the Hindustan Shipyard is substantially dependent on imported materials and in spite of repeated failures in obtaining imported materials in time due to some reason or other, no effective steps have been taken to get machinery and equipment manufactured within the country. A statement showing value of imported and indigenous materials purchased annually is given below:—

Year	(Rs. in lakhs) Stores and Machinery				(Rs. in lakhs) Steel			
	Indigenous	Imported	Total	%age of 3 to 4	Indigenous	Imported	Total	%age of 7 to 8
1	2	3	4	5	6	7	8	9
1961—62	131·67	232·48	364·15	64%	36·40	48·96	85·36	60·39%
1962—63	51·67	267·38	319·05	84%	60·28	22·85	83·13	30·05%
1963—64	68·74	107·09	175·83	62%	39·83	39·35	79·18	54·25%
1964—65	85·80	229·93	315·73	73%	46·47	50·96	97·43	55·24%
1965—66	62·54	488·00	550·54	89%	22·98	65·26	88·24	78·02%

90. The above table shows that the percentage of steel, stores and machinery imported to the total purchases made is very high and has been increasing. Main obstacle in the way of indigenous manufacture of shipbuilding equipment in the country is stated to be their low off-take due to which the indigenous manufacturers do not come forward to manufacture them. In reply to a question the Shipyard has stated that the matter has been receiving its constant attention and as a result of its special efforts during the last nine years, as many as 83 items valued at Rs. 74:72 lakhs, which were imported previously, are now procured from indigenous sources.

91. During evidence, in order to maintain the fact that foreign exchange content of ships has been reduced, the Secretary of the Ministry furnished a statement which is reproduced below:—

(Rs. in lakhs)

V.C. Number	Total Cost as on 31-3-1966	Foreign exchange content	Percentage of foreign exchange to total cost
1	2	3	4
V.C. 137	131·08	69·10	52·72
139	139·57	64·36	46·11
142	134·85	64·06	47·50
145	195·50	107·26	54·86
146	190 ·80	110·34	57·83
147	186·04	104·35	56·09
148	187·61	109·25	58·23
149	176·39	92·97	52·71
150	174·17	93·02	53·41
151	174·01	89·95	51·69
152	176·46	89·50	50·72
153	208·35	98·40	47·23
154	201·91	88·06	43·61
155	217·44	92·75	42·66
156	219·89	93·45	42·50
157*	212·37 upto	92·96	43·77
158*	205·50 August	91·00	44·28
	1966		

92. *After examining the statement, the Committee are unable to agree with the view expressed by the Secretary. What is not foreign exchange content is not necessarily indigenous material. On the contrary it includes labour, overheads and other expenses. If the foreign exchange content has come down, it was because the Shipyard failed to check other expenses, viz., overheads, labour expenses etc. Even if the manufacture of 83 items is taken into account, it will be found that their value is insignificant as compared to the large amount spent on building ships during this period. The Committee feel that had Government, instead of giving a high amount of subsidy to the Shipyard, given some incentive to the indigenous manufacturers, some of them would have come forward to undertake the*

*Bookings of materials etc. are still expected.

manufacture of the imported equipment. The Committee trust that earnest efforts will be made to secure the manufacture of machinery and equipment indigenously.

B. Marine Diesel Engine Factory

93. Marine Engine is the most costly single item in a ship. As far back as 1954-55, the Estimates Committee recommended the manufacture of marine diesel engines in the country. The proposal was also included in the Second Five Year Plan and the project report for the same was received in 1957.

94. As regards delay in setting up of the project, the Secretary, Department of Transport and Shipping stated during evidence that in 1962 the Cabinet approved of the project. Subsequently papers were handed over by the Department of Heavy Industries to the Ministry of Defence. In June, 1962 the Ministry of Defence concluded a contract with M|s MAN of West Germany for setting up a marine diesel engine factory. Later due to Emergency, this project got low priority and very little progress could be made.

95. It was also stated that the project was tied up with the demand for 6 marine diesel engines, four to start with. So long as the Shipyard could not produce six or even four ships a year, the marine engine project was not viable. Now the Shipyard had planned to have 4 engines in the first phase, 6 in the second phase and 8 in the third phase. The project has not been completely cleared financially and as soon as financial sanction for capital expenditure is received, the work on it will start. It is, however, now expected that production of engines will commence in 1969.

96. The Shipyard has orders on hand for construction of V.C. 159 to 167 for the Shipping Corporation of India. The last of these vessels is scheduled to be delivered in February, 1969. During evidence the Managing Director informed the Committee that the main engines for next new series with VC-168 to 179 had been offered by the Garden Reach Workshop.

97. The Committee note that inspite of the fact that the marine engine is the most costly imported item no serious effort have been made by Government to get it manufactured within the country. The reason for delay in establishing such a project is the low priority that Government have given it. This delay has resulted in the Shipyard being required to import marine engines from abroad all these years thus involving drain on the country's foreign exchange resources. The Committee suggest that Government should provide all the necessary facilities for the early establishment and commission-

ing of this project. In any case, the Committee hope that the first of the engines to be produced by this factory will be available to the Shipyard by 1969.

C. Supply of Steel

98. Second expensive item in shipbuilding is steel. Indigenous suppliers are the TISCO and the Rourkela, Durgapur and Bhilai Steel Plants of H.S.L. but the present supply from these is stated to be quite inadequate. It has been stated that even at present, capacity for the manufacture of steel materials required by the Shipyard is available in the country—at Rourkela for plates and at Bhilai for sections. However, the extent to which the requirements of the Shipyard will be met from indigenous sources during the Fourth Five Year Plan depends entirely on the policy of Government in the Ministry of Iron & Steel. In reply to a question as to how far the steel requirements of the Shipyard will be met from the indigenous sources, the Ministry of Transport has stated that at present the steel plates are under price and distribution control while steel sections are decontrolled.

99. For decontrolled items, it has been stated that indents are received by the Joint Plant Committee whose Chairman is the Iron and Steel Controller and the Steel Plants are represented on it. That Committee plans the indents on respective plants and also draws up rolling programme for each quarter. According priorities is also the function of that Committee, which gives highest priority to Defence requirements. Because of the wide range of sizes of sections required in small quantities for ships being built at the Hindustan Shipyard, the steel mills are not able to roll the Shipyard's total requirements. However, import of steel/section is also controlled by the Iron and Steel Controller, who takes into account the indigenous availability before allowing imports.

100. For controlled items priorities are allotted by the Steel Priority Committee, a high-powered Committee at the Centre, with the Secretary, Ministry of Iron and Steel as its Chairman. That Committee accords priority to consumers sponsored by various Ministries, on 6 monthly periods. Priority (a) is given to Defence demands while priority (b) is given to Railways, Transport and Communications, basic industries, agriculture, small scale industries and important projects. The Hindustan Shipyard falls under the latter category. Uusually only Defence demands are met in full.

101. It has been stated that the full requirements of the Shipyard are not met by indigenous producers. The following statement shows the priorities asked for by the Ministry of Transport and those actually allotted by the Iron and Steel Controller for the period October, 1966 to March, 1967:—

	Cleared demand covered by works order or planning notes.	Priority allotted.
B.P. Sheets . . .	26	20
Plates	956	478
G.P. Sheets . .	17	Nil
G.C. Sheets . . .	78	Nil

102. The Ministry of Transport has stated that by the end of the Fourth Plan period, the Indian steel mills will be able to supply almost the entire range of steel for ship construction except some sections, bulks etc. which are required in a wide range of sizes but in relatively small quantities.

103. *The Hindustan Shipyard was taken over by Government of India from the Scindia Steam Navigation Company because of its vital strategic importance in emergencies. That seems also the reason for this industry being subsidised. If Government consider shipbuilding as an important industry, the Shipyard needs to be given greater priority in the matter of allotment of steel. Further, supply of steel from indigenous sources in larger quantities would ensure steady production in the Shipyard and obviate excessive dependence on foreign supplies which are not readily available and also save foreign exchange. The Committee hope that the supply of steel to the Shipyard would be planned in advance in consultation with the Ministry of Iron and Steel so that production is not hampered due to short supply or non-availability of steel in time.*

D. Development of Ancillary Industries

104. As far back as 1955 the Estimates Committee in their 14th Report (First Lok Sabha) recommended the setting up of subsidiary industries for the manufacture of standardised parts of fittings, equipment etc. and also called for immediate attention to be paid to the manufacture of engines. In their 116th Report (1960-61) (Second Lok Sabha) they while agreeing with an observation made by the Ship Ancillary Industries Committee in 1957, recommended that effective steps should be taken for setting up of ancillary industries.

105. Activities for the indigenous development of ship's equipment which were imported, started in the Shipyard in 1957. During the period from 1957-58 to 1964-65, 77 items of equipment have been ordered indigenously for use in ships built in the Hindustan Shipyard, which contributed to a saving of about Rs. 56.49 lakhs.

106. Some of the items of equipment, which are at present imported and constitute a bulk of the total cost of a ship are mentioned below indicating the progress made with regard to indigenous production of each:—

(i) Main Engines	This Project is being processed by the Ministry of Defence and is expected to be completed by 1969.
(ii) Cargo Winches	M/s. Scindia Workshops Ltd. are planning to manufacture them in collaboration with M/s. Siemens.
(iii) Hatch Covers	M/s. Scindia Woskshop Ltd. are planning to manufacture them, in collaboration with M/s. Macgrego Hatch Covers.
(iv) Separators	M/s. East Asiatic Co. Ltd. and M/s. Vulcan have started manufacture of these in the country. The Shipyard has placed sample order with M/s. East Asiatic.
(v) Exhaust Boiler	M/s. Structural Engineering Works, Bombay, in collaboration with M/s. Cochrane, U.K. have started manufacture of boilers recently.
(vi) Continuous Welded Pipes	A good deal of progress has been made the indigenous development of this item.
(vii) Shaftings (viii) Propellers	No Indian firm has taken interest in the manufacture of these items.

107. As regards steps taken by the Government to develop the ancillary industries, the Secretary, Ministry of Transport gave the following reply:—

> "We have set up a National Advisory Council on ship-building and ship repair. The Minister of Transport is himself the Chairman of the Council. Secondly, we have set up a Standing Committee, which plays the role of a watch dog

committee. It has to meet more frequently than the parent body. It sees that the decisions are implemented. Thirdly, we have a Ship Ancillary Industries Committee."

108. The main stumbling block in the way of satisfactory development of ship ancillary industries is the low off-take of such equipment, rigid standards laid down for marine purposes, cumbersome requirements for shop trial and tests and elaborate arrangement required for installing special types of jigs and tools. It is hoped that with the establishment of the Second Shipyard at Cochin and the expansion programmes in the Hindustan Shipyard Ltd., Mazagon Docks and Garden Reach Workshops, the off-take of this equipment would be enough to make the manufacture of such items a viable proposition.

109. Other difficulties in the way of development of ancillary industries are stated to be that the prices of indigenous items are quite high, the suppliers cannot guarantee the quality of goods and they fail to supply the materials in time.

110. *While the Committee appreciate the difficulties experienced by Government in developing ancillary industries, they are not satisfied with the progress made during the last* 10 *years, i.e. since* 1957 *when the Ship Ancillary Industries Committee submitted their first report. As mentioned above, even now some of the main items of equipment have not been taken up for manufacture in the country. The appointment of Standing Committees or ad hoc Committees to advise on the development of ancillary industries would not serve the purpose unless earnest efforts are made to tap prospective firms who could take up manufacture of these items.*

111. In November, 1965, the Heavy Engineering Corporation, Ranchi wrote to the Shipyard suggesting that the former would be able to take up manufacture of shipbuilding equipments, particularly propellers and propeller shafts. In February, 1966, the Shipyard furnished to H.E.C. full specifications and drawings of the above equipments. Quotations from H.E.C. are awaited.

112. *The Committee hope that the negotiations between the two undertakings would be expedited and the production of propellers commenced soon. Efforts should be intensified to get other imported items also manufactured indigenously. It should be possible to induce the public sector undertakings to undertake the manufacture of such equipment if no one else freely comes forward to do so.*

E. Disposal of Surplus Stores

113. The table below shows the surplus stores as shown by the management and is idicated by the Audit in paragraph XIII (4) of Audit Report (Commercial), 1964.

	As shown by the shipyard	As indicated by Audit
	(Rs. in lakhs)	(Rs. in lakhs)
1. As on 31-3-1957	17·50	17·50
2. As on 31-3-1958	8·87	17·50
3. As on 31-3-1959	7·02	17·50
4. As on 31-3-1960	6·24	16·71
5. As on 31-3-1961	5·90	16·38
6. As on 31-3-1962	4·80	15·28
7. As on 31-3-1963	0·57	15·12
8. As on 31-3-1964	2·40	..
9. As on 31-3-1965	2·11	..
10. As on 31-3-1966	2·18	..

114. In para 149 of their Eighteenth Report (2nd Lok Sabha), the Public Accounts Committee recommended that unwanted stores should be cleared quickly by the Shipyard to reduce storage and maintenance charges. The Ministry in their reply to the above recommendation intimated in 1960 that necessary action was being taken by the Shipyard by holding periodical auctions.

115. The position regarding the disposal of stores since 1957, when the matter was first brought to notice by the Audit (Para 44 of the Civil Audit Report, 1957) has not, however, been satisfactory as will be seen from the above data. On the 31st March, 1963 surplus stores valued at Rs. 15.12 lakhs were lying in stock. Besides, the disposal of stores of the book value of Rs. 4.60 lakhs during 1957-58 to 1962-63 resulted in a loss of Rs. 2.30 lakhs. Out of the surplus stores of Rs. 15.12 lakhs, stores valued at Rs. 14.56 lakhs were re-categorised as usable.

116. The Management intimated the Audit in January, 1966 that the records pertaining to stores re-categorised in the year 1957-58 and 1958-59 (valued at Rs. 10.48 lakhs) were destroyed in a fire accident which occurred in 1962 and that in the absence of such records it was not possible to segregate the value of stores used from these stocks. Regarding stores worth Rs. 4.08 lakhs subsequently re-categorised for re-use it has been stated that it was rather very difficult to segregate the value of stores used as there were no separate allocations for issues made therefrom.

117. In reply to a question as to how difference in figures on surplus holdings of stores has crept in, it has been stated that the figures given by the Audit were inclusive of the value of materials which were re-categorised as usable during the period from 1957-58 to 1962-63, whereas the figures given by the Shipyard were exclusive of the value of such usable materials. They also furnished the following statement to reconcile the position:—

(Rs. in lakhs)

Year	Opening balance	Additions	Deductions on Account of			Closing balance	As indicated by Audit
			Issues	Transfers	Disposals		
1	2	3	4	5	6	7	8
1956-57	17·50	..	..	..	..	17·50	17·50
1957-58	17·50	0·35	..	..	0·35	17·50	17·50
1958-59	17·50	0·01	..	..	0·01	17·50	17·50
1959-60	17·50	1·70	..	10·48	2·49	6·23	16·71
1960-61	6·23	0·16	..	..	0·49	5·90	16·38
1961-62	5·90	..	..	..	1·10	4·80	15·28
1962-63	4·80	..	..	4·08	0·15	0·57	15·12
1963-64	0·57	1·83	..	..	..	2·40	Not given
1964-65	2·40	..	0·02	..	0·27	2·11	Do.
1965-66	2·11	0·21	..	..	0·14	2·18	Do.

118. It will be observed that the position of surplus store holdings (as on 31-3-1958 and 31-3-1959) shown by them in the above statement does not reconcile with the figures of surplus store holdings furnished by them earlier although the latter statement reconciles with the Audit figures.

119. In reply to another question as to why these usable stores had been categorised as unusable in the first instance, the Shipyard has stated that the records showing the details of these recategorised stores were destroyed in the Belman Hanger fire accident in May, 1962 and it was not possible to state why these stores had been categorised as unusable in the first instance and what was the value of the stores lost/used.

120. When the Shipyard was asked to explain at whose instance these unusable surplus stores were re-categorised as usable, the management gave the following reply:—

"These stores represent the items which had remained stagnant for a considerable period and the realisable value of which was expected to be lower than the value at which they were stated in the Balance Sheet; and this fact had to be disclosed in our "Notes forming the Accounts" for the year 1956-57 in order to meet the requirements of the Company's Act 1956. But these were never considered as either surplus to our requirements or unusable, because they contained appreciable quantities of usable stores. Subsequently, these stores were continuously surveyed during the period 1958-59 to 1961-62 and only such of those items as recommended by the Survey Committee were disposed of. The remaining stores were, however, recategorised for retention on the basis of the recommendation of the workshop departments and Drawing Office, although they had not been allocated to any specific vessels under construction. They had been retained with the prospect of their being utilised on maintenance jobs and other works. The consideration that governed the retention of these stores were as follows:—

(i) Stores likely to be used as near substitutes in case of non-availability of exactly specified stores.

(ii) Stores that will not get deteriorated due to afflux of time.

(iii) Stores that should not be disposed of in the interest of the Shipyard at a loss and purchased again at much higher prices.

(iv) Stores that may be required for emergency repairs in case of breakdowns of machinery and lines of supply and communications."

121. *From the foregoing paragraphs it appears that the Shipyard does not maintain a proper record of stores and the decision to retain or dispose of accumulated stores is taken by the inspecting officers without proper consideration of their future utility. The Committee recommend that up-to-date records of stores should be maintained and the existing stores should be properly categorised. Stores should be categorised as unusable/surplus only after they have been so declared by a committee of senior officers.*

F. Fire Accident

122. As regards the cause of the fire accident which resulted in total destruction of the Belman Hanger, it has been stated that the

cause of the accident could not be determined with absolute certainty. However, the Enquiry Committee appointed subsequently to investigate into the matter felt that the probabilities were rather in favour of fire being caused due to careless throwing of a lighted cigar, cigarette butt, etc. by some one. That Committee also observed that:—

(i) The fire fighting equipment in the Shipyard was insufficient.

(ii) Arrangement for conveying quick message to fire service station was inadequate.

(iii) The knowledge of fire-fighting among the personnel needed improvement by way of training.

123. In reply to a question as to how these deficiencies were overlooked, the management gave the following reply:—

"The deficiencies which featured in the Enquiry into the fire accident that took place on 25th May, 1962 were brought into sharp focus only after occurrence of this fire, which unfortunately proved to be a major fire accident in the history of the Shipyard. The findings of the Enquiry Committee, although partially valid were at best a matter of opinion in the particular context of the fact that this fire caused extensive damage. To elucidate further, we do have a fairly well trained fire-fighting squad with a whole host of mobile tank unit, trailer pump, etc. equipped with an effective communication system and the fire fighting personnel are also given constant refresher training and exercise from time to time. In a matter like fire-fighting there is really nothing like a completely self-contained or foolproof arrangement capable of meeting every conceivable situation. The previous fire accidents that happened in the Shipyard were relatively small and our fire-fighting arrangements proved fully satisfactory to meet such situations. It was only after this accident which proved rather catastrophic in nature that we started thinking in terms of installing a fire hydrant system which is now well under way."

124. *If the assumption of fire having been caused by throwing off of a lighted cigarette is correct, it would follow that in a strategic industry like shipbuilding security measures proved to be inadequate and further the person responsible for causing the extensive damage intentionally or unintentionally could not be brought to book. The time of five years, after the enquiry, taken in installing a fire hydrant*

system is also long. The Committee hope that security measures would be properly strengthened and the fire fighting arrangements improved so that similar situations do not arise in future.

G. Loss on Reconditioning of Equipment—Paragraph XIII (1) of the Audit Report (Commercial), 1964

125. The Shipyard placed an order in February, 1956 for electrical equipment and machinery valued at about Rs. 10 lakhs on a foreign firm for a vessel to be launched in 1957. The equipment was received in July, 1958 and being heavy, was not moved to the stores but was allowed to remain in the open. The equipment was inspected in January, 1962 and it was revealed that part of it was badly damaged. As the guarantee period was already over the entire equipment had to be sent to the manufacturers and got repaired at a cost of Rs. 9 lakhs.

126. It is seen that the equipment was received in July, 1958 but was not installed for more than five years thereafter. Due to lack of a suitable heavy mobile crane, the equipment could not be moved and it was therefore kept under tarpaulin covering. The officers in charge of the Shipyard thought that this protection was adequate under normal circumstances. During 1958, heavy floods were reported to have occurred in the area. No inspection of the equipment was carried out even after the floods, due to the following reasons:—

(i) There was no proper inspection cell in the Shipyard till June, 1960.

(ii) The then Superintendent of Stores was under suspension from December, 1955 till June, 1959, when his services were terminated.

(iii) Shifting of all stores and machinery to the new General Stores and old Hull Shop.

(iv) Several officers being incharge of the concerned departments at that time, which was not conducive to the smooth running of the organisation.

127. A sub-Committee of the Board of Directors, which investigated into the matter, made the following suggestions in April, 1964 to avoid recurrence of such incident:—

(i) Time-lag between receipt of equipment and installation should not exceed 2|3 months.

(ii) Acquisition of 20 ton high jib mobile crane to facilitate storage under cover.

(iii) Inspection to be carried out if packages are accidentally exposed to damage, *e.g.*, raig, flood, etc.

128. *From the foregoing paragraphs it would appear that for several years after the taking over of the Shipyard by Government, its stores department had not been organised properly. It is also surprising that till June,* 1960 *there was no Inspection Department in the Shipyard. This has resulted in an avoidable extra expenditure of Rs.* 9 *lakhs in this case. The Committee expect that the stores and inspection departments have since been properly organised to avoid the recurrence of such losses in future. The Committee also suggest immediate inspection of stores on receipt, so that defects in quality or shortage in quantity are noticed in time for remedial action.*

IV

DEVELOPMENT PROGRAMME

A. Third Five Year Plan

129. The statement below shows the Third Five Year Plan estimates as made by the Shipyard and the amount sanctioned by Government:—

(Rs. in lakhs)

	Estimates made by Shipyard	Amount sanctioned by Govt.	Actual expenditure till 30-6-1966
I. First Stage			
(*i*) Civil Works . .	77·50	50·49	20·06
(*ii*) Plant & Machinery .	21·31	51·48	9·03
II. Second Stage			
(*i*) Civil Works	18·09	..	..
(*ii*) Plant & Machinery . .	162·80	5·52	..
	279·70	107·49	29·09

130. In reply to a question, the Ministry of Transport & Aviation (Deptt. of Transport) gave the following reasons for abnormally low expenditure as compared to estimated and sanctioned amount for the Third Five Year Plan period.

> "So far as the first stage civil works are concerned Government sanctioned works estimated to cost Rs. 50.49 lakhs only during the years 1962 and 1963 against the Shipyard's estimates of Rs. 77.50 lakhs as it was considered that it was unwise to spend more on civil works rather than on machinery and equipment which would directly contribute to the efficiency of the Yard. On account of the Chinese aggression in October, 1962, the Shipyard was asked by Government to postpone civil works worth Rs. 40 lakhs out of the sanctioned amount of Rs. 50.49 lakhs as a

measure of economy. This was in line with the policy decision taken by Government for postponement of civil works as far as possible without seriously affecting the performance of the undertakings concerned. In November, 1965, however, on reconsideration, Government sanctioned construction of staff quarters at an estimated cost of Rs. 9.50 lakhs out of the postponed works. It would thus be seen that the works actually sanctioned by Government amounted to Rs. 20.00 lakhs. The actual expenditure incurred by the Shipyard is also Rs. 20.00 lakhs".

131. As regards the plant and machinery in the first stage works of the Third Plan, the Ministry gave the following reply:—

"The Shipyard originally estimated the machinery at Rs. 21.31 lakhs which was sanctioned by the Government in July, 1962. In July, 1965 however, the Shipyard approached the Government for a revised sanction for the machinery which were estimated to cost Rs. 51.48 lakhs. The increase in the cost of the machinery has been explained by the Management as under:—

		Rs. in lakhs
(*i*)	General rise in prices compared to the price in 1959.	2·05
(*ii*)	Under estimate due to lack of data in the Shipyard .	4·23
(*iii*)	Price rise due to requirement of improved machines with more elaborate specifications than those contemplated in 1959 and inclusion of spares	18·97
(*iv*)	(*a*) Price rise due to higher indigenous prices . .	0·58
	(*b*) Due to restricted choice of country . . .	1·61
	TOTAL PRICE	27·44
	Less decrease in one item . . .	0·01
		27·43

Although the Ministry was not quite convinced about the reasons given by the Shipyard for the abnormal rise in the estimates in the machinery, sanction was reluctantly accorded for the increased cost of the machinery."

132. The Ministry has also stated that even though the actual expenditure incurred by the Shipyard against the sanctioned amount

of Rs. 51.48 lakhs is only Rs. 9.03 lakhs, orders for machinery worth Rs. 20.03 lakhs have already been placed by the Shipyard.

133. The Shipyard's proposals for development programme forming the second stage of Third Plan Development Programme were kept in abeyance pending finalisation of a programme for the overall reorganisation/development of the Shipyard with a view to raise its production capacity to 6 ships of about 12,500 DWT each per annum, which is currently under scrutiny of the Technical Consultants of the Shipyard.

134. In the budget estimates for 1965-66, a provision of Rs. 70.00 lakhs was made for the development programme of the Shipyard as per details given below:—

	Rs. in lakhs
Plant and Machinery	63·70
Civil Works	31·00
TOTAL .	94·70
Less expenditure to be met from Internal resources . . .	25·00
Balance provided in the Budget . . .	69·70
or SAY	70·00

135. The Shipyard had in fact asked for a provision of Rs. 150.00 lakhs. As this demand was considered to be unrealistic by the Ministry on the ground that the Shipyard would not be able to spend the amount, only a programme estimated to cost Rs. 95 lakhs was agreed to in consultation with the Ministry of Finance on the understanding that the Shipyard would spend Rs. 25 lakhs from its own resources. Later in the year the Shipyard presented a programme aiming at development of the facilities and modernisation of the Yard with a view to raise its production capacity from 3 ships to 6 ships (of about 12,500 DWT each) per annum. It was considered by all concerned that it would be better to have an integrated programme rather than piece-meal execution of development works. This integrated programme which includes the spill over from the Third Plan period also, is under scrutiny of the Technical Consultants of the Shipyard.

136. No expenditure sanction could therefore be issued by the Ministry. The Shipyard also could not spend much from its

internal resources on the works already sanctioned by Government due to the same reasons. As Consultant's comments|counter proposals were not likely to be received before the end of the year, the budget provision of Rs. 70 lakhs was reduced to 'NIL' in the revised estimates for the year.

137. In reply to a question the Shipyard has stated that the shortfalls in the development programmes did not have any serious impact on the production programme because even the existing capacity could not be fully utilised owing to difficulties in the flow of materials arising out of the shortage of foreign exchange.

138. *It will be seen from the above that in July, 1962 Government sanctioned a sum of Rs. 21.31 lakhs for purchase of plant and machinery but no further steps were taken for three years thereafter. In July, 1965 the Shipyard found that the prices had risen considerably in the intervening period and Government was therefore approached for a revised sanction for the machinery which were estimated to cost Rs. 51.48 lakhs. Though Government was not convinced about the reasons given by the Shipyard for the abnormal rise in the estimates, sanction was reluctantly accorded. Out of the sanctioned amount, a sum of Rs. 9.03 lakhs only was spent during the Third Five Year Plan period, as a part of the Shipyard's First Stage Development programme. The Second Stage estimate for purchase of plant and machinery was for Rs. 162.80 lakhs. The progress made in respect of the First Stage Development Programme itself was so slow that the estimate of Rs. 162.80 lakhs for the Second Stage obviously appeared to be unrealistic and was not sanctioned by Government. The Committee are unhappy to note that the development programmes formulated for execution during the Third Plan period practically remained on paper and valuable time of five years was lost without making any progress towards modernisation.*

139. *The Committee hope that in future the Shipyard's management will take due steps to implement the development proposals once these are sanctioned. Government should also exercise greater control over the Shipyard by obtaining periodical reports on implementation of plan proposals.*

B. Fourth Five Year Plan

140. In October, 1965 the Shipyard submitted some proposals for further expansion of the Yard for inclusion in the Fourth Five Year Plan at an estimated cost of Rs. 1290.37 lakhs with a foreign exchange component of Rs. 333.86 lakhs. This amount is inclusive of estimated expenditure on two major projects, namely Dry Dock

(Rs. 408.50 lakhs) and Wet Basin (Rs. 246 00 lakhs). The management has stated that since the Development Programme was formulated by it, a firm of Production Consultants has been appointed to advise on all aspects of reorganisation, etc. It has, therefore, been decided by the Board of Directors that they should have the benefit of a critical examination of the Development Programme by the Consultants before it is finally sanctioned by Government.

141. The firm of Production Consultants i.e. Messrs Daya Shankar & Associates to which detailed reference has been made in this Report is a new firm in the field and their performance is yet to be testified. *If sanction of the Development Programme is further delayed there is every likelihood of the shortfall as occurred in the implementation of the Third Plan Development Programme being repeated. The Committee suggest that the Shipyard's plan proposals should be finalised without further loss of time and their execution commenced.*

C. Extension of Jetty—Section III (3) of Audit Report (Commercial), 1966

142. In order to provide facilities for construction of 4 ships per year, the Shipyard with the approval of the Port Authorities decided in 1958 to extend the existing jetty towards the east. The work on the project was, however, awarded to a contractor only in April, 1964 and was scheduled to be completed after a period of 28 months. According to latest information, the work was expected to be completed only in December, 1966. It has been pointed out in the para referred to above that the delay in the finalisation of plan regarding extension of jetty has not only acted as an impediment to the maintenance of production schedule but would also result in an increased outlay of about Rs. 2.50 lakhs (approximately) owing to the increase in the prices of materials.

143. As regards reasons for the delay, the Shipyard has given the following reply:—

> "Although the Port Trust initially agreed to such extension for a length of 300 ft., which was considered worthwhile, during subsequent discussions it transpired that even this would not be permitted owing to their plans for enlarging the turning circle. Thus we were faced with the problem of having to reconsider the entire question whether the extension should be carried out on the eastern side or western side. As extension on the western side involved encroachment into Naval Base, the possibility of securing their consent to such encroachment, confined to a portion of their water front, was explored.

But even this eventually turned out to be unsuccessful in 1962. Thus we had once again to revert to the original idea of extension to the east at least for a length of about 200 ft. which was acceptable to the Visakhapatnam Port Trust. The concurrence of the Port was sought in October, 1962 and obtained in January, 1963."

144. In an earlier reply, the Shipyard had stated as follows:—

"As a matter of fact, even when we finally switched over to the idea of extending the jetty towards the east, the Port authorities were not very happy and were somewhat reluctant to let us do. The process of persuading them to accept our proposal took some time."

145. *It will appear from the above that a period of 5 years was taken in coming to a decision whether the extension of the jetty should be towards east or the west. The Port Authorities had in 1958 agreed to the extension of the jetty towards the east and there is no adequate evidence to suggest that they later on amended the sanction. The Shipyard by delaying the finalisation of this scheme till October, 1962 has only hampered its production programme.*

D. Dry Dock Project

146. The need for the construction of a dry dock at Visakhapatnam as an important adjunct to the Hindustan Shipyard was accepted by Government in February, 1954. A firm of Consultants, M|s Rendel, Palmer and Tritton, London were engaged in September, 1954 to investigate the feasibility of locating a dry dock at the Shipyard. They submitted a report in March, 1956 which contemplated construction of a Dry Dock of a size based on the then existing limitations of the entrance channel and turning basin of Visakhapatnam Port which could accept ships only upto 550 ft. in length. The Government originally sanctioned the project in March, 1955 at an estimated cost of Rs. 215.00 lakhs with a foreign exchange component of Rs. 41.60 lakhs. It was later decided in 1958 to postpone the project on account of the foreign exchange difficulties. Efforts to secure the required foreign exchange from a line of credit were made but to no avail. The World Bank were also approached for securing foreign exchange but they too were unable to sponsor this scheme.

147. The question of revival of the project was considered by the Board of Directors in November 1959. Revised estimates were obtained from the Consultants owing to the lapse of time of nearly 4 years. The revised estimates amounted to Rs. 269 lakhs, inclusive of

a minimum inescapable foreign exchange amount of Rs. 73.00 lakhs. Government of India, in their sanction for this amount (conveyed in January 1962) stipulated that the foreign exchange for the project had to be necessarily financed from a line of credit. The dimensions of the dry dock were 620'x90'x26'. The statement of case with likely machinery and equipment required was also sent to Government, but again no foreign exchange could be obtained. Simultaneously a floating dock was considered as an alternative as it was hoped to obtain such a dock on Rupee payment. This idea was also dropped at a later stage because no suitable anchorage for the floating dock could be located within the restricted area of the harbour and the floating dock itself needed a dry dock for repair. In August, 1963, it was ultimately decided to go in for a dry dock, and later by November 1963, to increased dimensions for accommodating the largest ship entering the Visakhapatnam Port. This was confirmed by the Board at its meeting held on the 24th March, 1964.

148. While considering the revised terms of Messrs Rendel Palmer & Tritton, the Board decided in its meeting held on the 22nd May, 1964 to invite quotations for technical consultancy of the dry dock project. Offers were received from reputable firms of consultants in U.K., Germany, Japan, Yugoslavia, Poland and Holland.

149. The Board at its meeting held on the 18th May, 1965 finally approved the appointment of Messrs. Ishikawajima-Harima Heavy Industries Co. Ltd., Tokyo, as Consultants for the Graving Dock Project.

150. The Consultants in their report for this larger dry dock recommenced the best dimensions of the dock as 800'x125'x38·70' capable of accommodating a 57,000 DWT Ship. The project is estimated to cost Rs. 408.50 lakhs with a foreign exchange component of Rs. 64.785 lakhs (post-devaluation). This estimate was sent by the Shipyard to the Ministry of Transport in June, 1966. The Ministry has replied that release of the foreign exchange will be made after sanction of the revised estimate of the project which is now under consideration by Government. It is estimated that it will take about 3 years to complete the project.

151. An officer of the Defence Engineering Services has been appointed as Chief Engineer for the project. The Visakhapatnam Port Trust has also leased out an area of 23.27 acres of port land for the purpose.

152. As regards the economics of the project, it has been stated that there is a long waiting list of ships to enter the dry docks at

Calcutta for repairs and that a considerable amount of such trade is diverted to the sipyards and dry docks at Singapore, Hong Kong and Japan owing to the paucity of such facilities along the East Coast of India. It is therefore expected that enough vessels plying along these maritime routes adjacent to the East Coast would come to the dry dock of the Hindustan Shipyard for repairs, as soon as it is commissioned, to maintain a full and busy programme for the dry dock. The Shipyard expects to have a minimum of 260 docking days available for commercial repairs to ocean-going vessels in the dry dock, after allowing their own requirements of ships built in the Shipyard. If the dry dock is to be kept busy, all the 260 docking days are to be fully occupied by repairs to vessels docked inside the dry dock. It has been calculated that even an efficiency factor of 60 per cent in the docking days would still leave some profit margin. A statement showing the economics of the project is at Appendix I.

153. It will be observed from the foregoing paragraphs that there has been inordinate delay in sanctioning and execution of the project. A dry dock is of prime importance in all cases in which major surveys or under-water repairs are to be carried out. Owing to the absence of a large sized dry dock at Visakhapatnam, the ships built at the Hindustan Shipyard have at present to be sent to Calcutta or elsewhere for dry docking before their delivery.

154. *Although the cost estimates of the project have since gone up, the Committee believe that a dry dock at Visakhapatnam can be operated as a financially viable project. It will fulfil the needs of the Shipyard as also of the ocean-going vessels plying along the maritime routes adjacent to the East Coast, and thereby earn sizeable amount of foreign exchange. The project has already been unnecessarily overdelayed. The Committee suggest that it should be accorded a high priority and executed expeditiously.*

V

ORGANISATION AND PERSONNEL

A. Chairman

155. The Board of Directors of the Shipyard comprises of 13 directors, of whom 7 are officials and 6 non-officials. The composition of the present Board of Directors is given at Appendix II.

156. It will be observed therefrom that the Secretary of the administrative Ministry is also the Chairman of the Board of Directors. While examining the affairs of the Shipping Corporation of India Ltd., the Committee on Public Undertakings in their Third Report (3rd Lok Sabha) recommended that it would not be in the interest of the undertaking to nominate the head of the administrative Ministry on the Board of Directors on the ground that (i) his presence would hamper a free and frank discussion of the issues involved and (ii) the advantages of a second screening of the proposals of the Undertaking at the Ministry level would be lost because the officers in the Ministry would work with an impression that it has got the approval of the Secretary.

157. The Committee on Public Undertakings in their Twenty Third Report on Indian Airlines Corporation—whose Chairman also was the Secretary of the Ministry concerned—made the following observation:—

> "In fact in the formulation of a decision within the Ministry the officials of the Ministry are likely to assume that the views of the Corporation have the approval of the senior most executive of the Ministry and as such their views are likely to be biased. Another drawback in such an arrangement is that the presence of a senior most officer of the Ministry in the Board hampers the autonomous functioning of the Corporation and does not provide sufficient incentive to its Chief Executive to take independent decisions, howsoever he may try to do so."

158. The above observations are more true in the case of the Hindustan Shipyard Ltd. because it has all along failed to achieve the targets of production.

159. In reply to a question it has been stated that even before his appointment as Secretary of the Ministry in February, 1965, the present incumbent was the Chairman of the Hindustan Shipyard

when he held the post of Joint Secretary in the Ministry. During evidence the Secretary stated that he had been requesting to be relieved of the Chairmanship but the Minister asked him to continue till a suitable Chairman was found to replace him. The Secretary could not say whether he had been able to devote sufficient time to attend to the work of the Shipyard.

160. *The working of the Hindustan Shipyard shows that it has failed to make any improvement since nationalisation. In fact as pointed out in another place the matters have deteriorated. The administrative Ministry also does not seem to have guided or exercised proper control on the working of the Shipyard. It is quite possible that with the Secretary of the Ministry having been the Chairman of the Board of Directors, the Shipyard's management became complacent. The present arrangement has led to a diffusion of responsibility as between the Undertaking and the Ministry for the poor performance of the Shipyard. The Committee recommend that the post of Chairman of the Board of Directors should be filled in by some suitable person other than the head of the administrative Ministry.*

B. Director of Ship-Construction

161. The Institution of Work Study, which made a short survey of the working of the Shipyard, pointed out that the Shipyard had no Director of Ship Construction since April, 1963 and the duties of this post were being performed by the Managing Director himself*. The Study Team reported that such a situation did not permit the top executive to apply himself vigorously to the task of forward planning and reorganisation. During evidence the Managing Director stated that the matter was engaging the attention of the Board and Government and he did not know why this post had been kept vacant for such a long time. He felt the necessity of having someone to assist him. During evidence the Secretary of the Ministry stated that they had tried to find a suitable person but failed because the talent in the country was limited. It was also stated that the salary was not attractive enough to draw persons from their present employment. However, efforts were being made to get a suitable person from the Navy.

162. *The Committee consider it unfortunate that for nearly four years now the functions of the Director of Ship Construction and the Managing Director have been discharged by a single person. They feel that this has been a major reason for the overall unsatisfactory performance of the Shipyard. The post of the Director of Ship-*

*During factual verification, it has been stated by the Ministry of Transport and Aviation that the Director of Ship Construction has been performing, in addition to his own duties, the duties of the Managing Director temporarily and this temporary arrangement has continued since April, 1963 till now.

Construction is of vital importance and the Managing Director has not been in a position to look after the duties of both the assignments. The Committee recommend that a competent and energetic person be appointed to the vacant post early.

C. Personnel

163. The following table shows the personnel employed by the Shipyard as at the end of the last three years:—

	As on 1-4-64	As on 1-4-1965	As on 1-4-1966
Regular	1207	1258	1337
Daily Rated	4216	4243	4170
TOTAL	5423	5501	5507

164. The Shipyard admits that a medium-sized yard comparable to theirs should not employ more than 2000 men.

165. The Institution of Work Study, Mussoorie, which carried out a survey of the working of the Shipyard, reported in July, 1964 that the manpower utilisation in the Shipyard was about 38.6 per cent. The low percentage of staff utilisation was attributed by the Institute to lack of adequate work-load and incentives.

166. The Shipyard has given the following reasons which account for its high manpower:—

> "The gathering of personnel in the Shipyard was not done in a scientific or rational manner. Due to lack of adequately trained personnel in the neighbourhood in the early stages, when the Shipyard was taken over in March, 1952, there was a large percentage of unskilled personnel. Further, the switching over from riveting to welding and from the Orthodox type of steamships to sophisticated diesel ships necessitated the employment of additional personnel after the take-over. While it is true that our present strength of employees is rather high, it is to a large extent inevitable under present conditions owing to the labour policy of Government and the social conditions in our country which have a bearing on the outlook of industrial labour."

The principal reasons for the low utilisation of manpower are stated to be lack of free flow of materials in the sequence required for production and demarcation problems with labour, who insist on a strict and watertight adherence to the job details specified for each trade. A high incidence of unskilled labour is stated to be another reason for low manpower utilisation. As regards demarcation problems, the management is trying to rationalise the delineation of trades and job specifications in consultation with the Unions concerned.

167. During evidence the Secretary of the Ministry of Transport stated that in order to improve the productivity of the Shipyard, the production consultants had recommended that the surplus labour should be got rid of. This recommendation could not be implemented in view of Government's labour policy.

168. *From the foregoing paragraphs it would appear that a large number of persons are under-employed in the Shipyard. The Committee are surprised to note that attempts to rationalise the delineation of trades and job specifications are being made now although the circumstances demanded them much earlier. This work should be completed early.*

169. *In view of the existing surplus staff and average low utilisation throughout the past, the Committee hope that the programme of production of 6 ships a year would be achieved as early as possible with the existing level of staff. The management should also endeavour to secure more ship-repairing work so as to make fuller utilisation of the present manpower.*

D. Recruitment and Promotion

170. The Estimates Committee had in para 155 of their 52nd Report (Third Lok Sabha) (1963-64) pointed out that the Hindustan Shipyard had not framed detailed rules and regulations regarding recruitment and promotions. The Shipyard has given the following reasons for not framing detailed recruitment and promotion rules:

> "Although we have not framed detailed recruitment and promotion rules as such, we do have a set and well-defined procedure, for recruitment and promotion, which is spelt out in clear terms. There are no special difficulties in framing or codifying a set of recruitment and promotion rules except that we have not felt the need for it so far."

171. *Detailed recruitment and promotion rules are necessary not only to ensure uniform application of rules by the Management but*

also to keep the employees informed of the existing procedures in unambigous terms. A set of well defined rules also keeps the management free from allegations of favourtism and nepotism. The Committee are surprised to note that the management of the Shipyard does not consider it necessary to codify the rules. The Committee recommend that detailed recruitment and promotion rules should be framed by the Shipyard at an early date.

E. Job Specifications

172. The basic essential to ensure the recruitment of the most suitable man for each post is to clarify the job requirements and define the specifications. The Shipyard has stated that job specifications have been laid down for most of the important posts of officers and supervisory personnel. The management does not consider it necessary or expedient to lay down detailed job specifications for lower categories of personnel like clerical staff etc.

173. *The Estimates Committee had in para 160 of their 52nd Report recommended that detailed specifications for each job should be laid down by all the public undertakings. The Committee find no reason why detailed specifications for each job should not have been laid down by the Shipyard. They hope that this would be done now.*

F. Industrial Relations

174. The industrial relations in the Shipyard do not appear to be very satisfactory. The Shipyard has neither a Works Committee nor a Joint Management Council. There is also no regular forum for discussing collective issues. Whereas a Works Committee could not be formed due to the non-cooperation of the workers' organisations, the management did not seriously consider the question of setting up a Joint Management Council.

175. The Shipyard, in a reply furnished to the Committee recently, stated that the main reason for their not being able to form the Joint Management Council and the Works Committee was that the Unions concerned were not enthusiastic.

176. *First and foremost thing essential for maintaining production without interruption is cordial relationship between the management and the workers and in order to do so a good negotiating machinery is a basic necessity. The Committee hope that the Shipyard will form Joint Management Council/Works Committee.*

VI

PRICING

A. Pricing and Subsidy

177. At present a shipowner can obtain a ship from a foreign shipyard at a price lower than that at which the Hindustan Shipyard can supply it under the existing arrangements. The sale prices of ships built by the Shipyard are fixed on the basis of world parity prices prevalent at the time and are negotiated by the Shipyard with the purchaser, the object being that the Indian shipowner is not asked to pay more than the price which he would have paid if he had bought the ship from abroad. This is provided by Government with the object of putting him in a competitive position as the Indian shipping companies have to compete in the international market with foreign shipping companies. As the cost of shipbuilding in the Hindustan Shipyard is high, the excess of the cost of construction of a ship over its sale price is reimbursed by Government to the Shipyard as subsidy. In terms of Article 161 (1) of the Articles of Association of the Shipyard the subsidy is repayable when the Shipyard earns a profit over 4½ per cent of the paid-up capital. The Shipyard did not earn sufficient profits upto the end of 1965-66 to repay any portion of the subsidy.

178. Subsidies paid by Government to the Shipyard year-wise are given below:—

	Rs. in lakhs
1953-54 . . .	60·48
1954-55 . . .	35·00
1955-56 . . .	67·00
1956-57 . . .	90·00
1957-58 . .	35·93
1958-59 . . .	96·51
1959-60 . . .	115·69
1960-61 . . .	133·51
1961-62 . . .	100·91
1962-63 . . .	91·17
1963-64 . . .	79·06
1964-65 . . .	82·43
	988·69

179. According to the Review of the Accounts of the Shipyard for the year ended 31st March, 1966 by the Director of Commercial Audit, the Shipyard received a total sum of Rs. 1137.79 lakhs as subsidy to the end of 1965-66.

180. A statement showing the cost of construction of ships, sale price, subsidy shipwise etc. for the years 1955-56 to 1965-66 is given at Appendix III. It will be seen that the element of subsidy has abnormally increase during recent years as indicated below:—

V.C. No.	DWT	Cost of Construction	Sale Price	Subsidy	% of subsidy to total cost
		(In lakhs of Rupees)			
		Ships delivered between September 1962 & September, 1963.			
149.	12300	176·39	142·95	33·44	18·96
150.	12300	174·17	142·95	31·22	17·92
151.	12300	174·01	142·96	31·04	17·84
152.	12300	176·46	142·96	33·50	18·98
		Ships delivered between November, 1964 and March, 1965			
153.	12709	208·35	134·57	73·78	35·41
154.	12669	201·91	135·01	66·90	33·13
155.	12743	217·44	134·19	83·25	38·29*
156.	12743	219·89	133·94	85·94	39·09*

181. *From the above table, it will be noticed that the element of subsidy is not only high but has also risen by about 100 per cent in respect of ships built recently. This shows that the Shipyard has failed to keep a check over its cost of construction. Payment of higher subsidies implies that the tax payer has to pay more and more for the failure of the management. The Committee suggest that the reasons for increase in costs should be analysed by experts not connected with the Shipyard and steps taken to bring them down.*

*These include payment of customs regulatory duty of Rs. 9·60 lakhs per ship which are now refundable. If these amounts are deleted, the percentage of subsidy for these two vessels works out to 35·44 and 36·31 respectively.

B. Revision of Pricing Formula

182. Consequent on the devaluation the pricing formula has received a new orientation and the matter has been under discussion with the Ministries concerned. The intention is to reduce as far as possible the element of subsidy.

183. The Shipyard's claim for subsidy is based on the following considerations:—

(a) Indigenous materials used in shipbuilding cost much more than that paid by a foreign shipbuilder for such materials.

(b) On the imported materials and equipment the element of freight and insurance is quite substantial and is of the order of 10 per cent of the value of such materials.

184. *The Committee consider that the principle of giving subsidy to cover all the excess cost of construction of a ship over the price received by the Shipyard is not desirable in as much as it does not give necessary incentive to the Shipyard to improve its performance. In the Committee's view, the buyer should also not be asked to pay appreciably more than that he would have paid for a similar ship constructed elsewhere. So far as the Shipyard is concerned, if any subsidy has to be paid to it, Government should lay down a norm for the purpose with an upper limit instead of paying in full the difference between the cost of construction and the sale price. The above procedure would save Government and the tax payer from bearing the entire burden of the deficiencies of the Shipyard and at the same time induce the Shipyard to reduce its cost of construction.*

C. Escalation Clause

185. Under the present procedure the sale price of a ship is fixed by negotiation on the basis of international parity price. During the course of production, prices of materials tend to increase leading to higher cost of production. In the early stages, there was the practice of inserting an Escalation Clause in the agreements signed with the shipowners. Lately, however, the contracts did not have such a clause. The management has stated that this was mainly due to the slump in the world shipbuilding market and because the general trend everywhere has been acceptance of orders on a fixed price basis.

186. *Although the shipowners might like to purchase ships on a fixed price basis, the Committee consider that, in the economic conditions prevailing in the country, the inclusion of an esculation*

clause in the agreements with the shipowners is desirable. Such a provision is also in consonance with the normal commercial practice in other trades. The Committee suggest that possibility of inserting such a provision in future contracts might be examined.

D. General

187. The Shipyard has, since the first keel-laying in 1946, built 44 ships (including a few small crafts) contributing to Indian Shipping over 3,00,000 DWT or about 2,30,000 GRT. At the end of Third Plan period, the Indian shipping tonnage totalled 1.54 million GRT. During the Fourth Plan period, besides replacing obsolete tonnage aggregating to about 200,000 GRT, a net addition of about 1.5 million GRT is envisaged.

188. The programme of construction of ships by the Hindustan Shipyard as now envisaged is as follows:—

Year	No. of ships	
1965-67 . . .	2	
1967-68 . . .	4	
1968-69 . . .	5	
1969-70 . . .	6	
1970-71 . . .	6	
	23	ships or 282,900 DWT assuming each vessel of 12,300 DWT or 207,000 GRT (12,300 DWT =9000 GRT).

189. *Even with the completion of the programme of construction as indicated above, the contribution of the Hindustan Shipyard (207,000 GRT) to the Indian Shipping tonnage (1.7 million GRT) during the Fourth Plan period will come to only 12 per cent and a bulk of the remaining addition to the Indian Shipping tonnage will have to be by acquisition of ships from abroad, and thus causing heavy drain on country's resources. The Committee hope that to enable the Shipyard to fulfil its target of production, Government will be able to give necessary priority to the Indian Shipbuilding Industry by providing necessary financial assistance as also ensuring supply of shipbuilding material and equipment in time and in sufficient quantity.*

VII

FINANCE AND ACCOUNTS

Financial Appraisal

190. The following statement shows in brief the financial appraisal of the working of the Hindustan Shipyard Ltd., during the last five years:—

(*Rs in Lakhs*)

		1961-62	1962-63	1963-64	1964-65	1965-66
1. Total Capital	(*a*)	1451	1344	1383	1479	1438
2. Paid-up Capital	(*b*)	579	586	599	603	603
3. Net Worth	(*c*)	568	579	592	597	600
4. Working Capital	(*d*)	249	266	282	277	278
5. Fixed Assets	(*b*)	329	318	315	325	326
6. Total current assets	(*d*)	1121	1025	1068	1152	1110
7. Preliminary expenses etc.	(*e*)	11	7	7	6	3
8. Total current liabilities	(*f*)	872	759	786	875	832
9. Work-in-progress	(*b*)	625	557	669	639	503
10. Materials in stock including materials in transit	(*b*)	437	386	331	408	465
11. Production	(*g*)	461	498	475	430	540
12. Sales	(*h*)	298	433	292	335	414
13. Subsidy	(*i*)	87	120	57	114	251
14. Cumulative subsidy	(*b*)	596	716	773	887	1138

		1961-62	1962-63	1963-64	1964-65	1965-66
15. Net Profit/Loss	(i)	(+)0·24	(+)0·37	(+)0·64	(+)0·57	(+)1·45
16. Cumulative Loss	(b)	8·25	5·03	4·17	3·52	1·51

(a) Total capital has been arrived at after deducting the amount of Preliminary expenses etc. item 7 and note (e) and Security Deposit Investment (which is contra item) from the total assets.

(b) As per Balance Sheet (No. 10 Materials in stock include machinery and equipment purchased for ships).

(c) Calculated by deducing the net loss and preliminary expenses etc. as per accounts during the year from the paid up capital.

(d) Current assets minus current liabilities.

(e) Preliminary expenses, deferred revenue expenditure and cumulative loss.

(f) Loans and Advances and current liabilities and provisions as given in the Balance Sheet with the exception of Dry-dock Advance and Yard Development Advance.

(g) As in Directors' Report.

(h) Sales comprise (1) Contract price (2) Increase as per escalatory clause (if any) and (3) Increase for extra jobs in respect of ships completed and delivered plus ships repairs and other miscellaneous work carried out during the year.

(i) As per Profit and Loss Account.

VIII

SECOND SHIPYARD

191. It is seen that the need for a second shipbuilding yard in the country was recognised even at the time of formulation of the Second Five Year Plan and a tentative allocation of Rs. 75 lakhs was made for the Project mainly for training of personnel and other preliminary expenses. It was then intended that the construction work would start in 1958 and production should commence in 1963.

192. In December, 1956 an Inter-Departmental Committee under the Chairmanship of Shri R. L. Gupta was appointed to look into the matter.

193. The Committee in its report submitted on the 27th May, 1957 placed the annual replacements of the country at 1,20,000 GRT. Considering that the capacity of the Hindustan Shipyard would be 40,000 GRT per annum after the completion of the second phase of Shipyard development, the Committee recommended that the Second Shipyard should be so planned as to have a capacity of 60,000 GRT per annum capable of increase in future to 80,000 GRT.

194. At the request of the Government of India, a Technical Mission, headed by Mr. James Lenaghan of the Fairfield Shipyard visited India in November, 1957. In July, 1957 an advance party of this Mission had come to this country and inspected various sites. The Mission in its report submitted in April, 1958, recommended Cochin as the most suitable site. This was examined by an Inter-departmental Committee, which held six meetings between 11th July, 1958 and 3rd November, 1959. In their report dated the 3rd November, 1959 that Committee recommended the establishment of the Second Shipyard at Cochin on the Ernakulam Channel at the site recommended by the U.K. Shipyard Mission. The Cabinet at its meeting held on the 18th November, 1959 approved of the proposal to establish the Second Shipyard at Cochin subject to the results of soil investigations proving satisfactory. On the 26th November, 1959 the then Minister of Transport and Communications announced in Parliament the decision of Government to locate the Second Shipyard at Cochin at the site recommended by the U.K. Shipyard Mission.

195. The period between December, 1959 to October, 1962 was taken in negotiations with the British and other European firms.

196. In October, 1962 the then Minister of Shipping, Shri Raj Bahadur, visited Japan with a view to interest some Japanese shipbuilding firms in the project. As a result of the discussions held there, the Mitsubishi Shipbuilding and Engineering Co. Ltd. sent out a team of technical experts to this country and submit a report on the project.

197. The team visited India in November-December, 1962 and submitted a report in April, 1963. In May, 1963 the team again visited this country with a view to check up the basic assumptions made in their report. The final report of the team was presented by a high powered delegation which visited New Delhi in October-November, 1963.

198. Further discussions were held in June and August, 1964, but since the matter was getting delayed it was decided to have, as a first step, an agreement for the basic survey, preliminary design and project report which were essential. An agreement for this purpose was signed on the 1st February, 1965.

199. The agreement with the M.H.I. was for conducting a basic survey, preparation of preliminary design and a project report on the Second Shipyard.

200. The report submitted by the M.H.I. in April, 1966 envisaged the construction of the project in two stages. By the end of the first stage, which will be reached 5½ years after the construction of the project starts, the production will be two ships of 33,000 DWT each and two ships of 53,000 DWT each per annum totalling to 1,72,000 DWT per annum. At the end of the second stage the Shipyard will reach the capacity of 2,38,000 DWT per annum by turning out four ships of 33,000 DWT and two ships of 53,000 DWT and would also have a ship repairing capacity of 7,50,000 DWT.

201. The decision regarding the type and size of the ships to be built at the Second Shipyard has yet to be taken. However the report of the M.H.I. recommended the construction of the following:—

(1) 33,000 DWT Tankers/Bulk-carriers.

(2) 53,000 DWT Tankers/Bulk-Carriers.

The M.H.I. have also reported that there is a built in scope for construction at a future date of 75,000 tonners also.

202. The estimated time required for the construction of a ship at the proposed shipyard as envisaged in the project report, will be reduced progressively till at its peak performance the shipyard will be turning out a complete ship in less than a year's time.

203. It is contemplated in the project report that by the time the Second Shipyard goes into production, the main and auxiliary engines will be produced indigenously along with major items of machinery required to be fitted into the ships. It has also been assumed that the steel requirements for the ships will be met in full from within the country.

204. It has been decided that the foreign exchange requirements for the project shall be met through a yen credit. The cost of the project of the size as envisaged in the project report is Rs. 56·63 crores with a foreign exchange outlay of Rs. 16.50 crores (post devaluation). However, these are only tentative figures as the scope of the project has not yet been finally decided.

205. Adequate schemes have been suggested in the report for the training of personnel required for the yard both in India as well as in Japan and/or abroad in other countries.

206. *From the foregoing paragraphs it will be seen that although the Cabinet approved the proposal to establish the Second Shipyard at Cochin in November, 1959, the work on the project has not yet commenced. About three years time was spent in negotiations with the shipbuilding firms in U.K. and other European countries without a success. During this period no efforts were made to contact any Japanese firm. It took another two years to come to an agreement with the Japanese firm, MHI. The report of the Japanese firm was submitted in April, 1966, but final decision regarding the size and scope of the project is yet to be taken. Due to the delay in the establishment of the Second Shipyard the country continues to depend mostly on foreign shipyards for augmenting its shipping tonnage. The Committee hope that Government would take a decision on the scope and size of the project and commence work on it soon.*

207. *Early establishment of the Second Shipyard will be of great advantage to the shipbuilding industry in the country. With*

the establishment of the Second Shipyard, demand for marine engines and other shipbuilding requirements will increase...This in turn would induce indigenous manufacturers to undertake the production of the required equipments which they are reluctant to do at present. Indigenous manufacture of equipments, besides saving a considerable amount of foreign exchange, would also ensure a steady and timely flow of materials to the Hindustan Shipyard as well as to the Second Shipyard.

IX

CONCLUSION

208. Present study of the various aspects of the Hindustan Shipyard Ltd. has revealed that the performance of the shipyard has been unsatisfactory. It is true that the Shipyard has been experiencing a number of difficulties since inception, the most important being the inapt flow of materials, arising largely due to difficult foreign exchange situation. *Nevertheless, the Committee feel that even the available resources were not utilised to the fullest extent due to lack of proper supervision at various levels. The Committee had the benefit of discussions with the officials during their visit to the Shipyard and later during evidence. Their impression is that the organisation of the Shipyard is considerably weak. The persons at the top should show more drive and determination to get their orders executed. The second line of management which could be entrusted with efficient supervision of work is not effective. Strengthening of the organisational set-up with efficient persons is essential.* Other specific measures which ought to have been taken or that are required to be taken to improve the position, have been indicated by the Committee in the appropriate places of this Report. Some of the important recommendations are mentioned below:—

(a) Time taken in construction of vessels is abnormally long and should be reduced. (Para 49).

(b) Schedules for ship construction should be prepared after careful consideration and endeavour made to adhere to them. (Para 61).

(c) Productivity (DWT per man) should be improved. (Para 73).

(d) Overhead costs should be reduced. (Para 77).

(e) Machinery and equipment in the shops that have become old and obsolete should be replaced. (Para 81).

(f) Development of ancillary industries should be given priority. (Para 110).

(g) Development Programmes for the Fourth Plan should be finalised and their execution commenced expeditiously. (Para 141).

(h) The Dry Dock Project and the Marine Diesel Engine Project should be given priority and executed expeditiously. (Paras 154, 97).

(i) The programme of production of 6 ships a year should by and large be achieved with the existing level of staff. (Para 169).

(j) Cost of construction should be economised with a view to reduce the element of subsidy. (Para 181).

209. There are certain aspects which hamper efficient working of the Shipyard and on which it has no control. These are (a) supply of steel and other ship-building material (both imported and indigenous) in time and in the sequence required, (b) development of ancillary industries, and (c) release of foreign exchange according to requirements. *Considering the need for augmenting the country's shipping tonnage, the Committee feel that Shipyard should be given high priority in the matter of release of required foreign exchange. This would in the long run be an investment and result in saving foreign exchange. The Government should also take adequate steps to develop indigenous manufacture of ship-building equipment.*

210. With the implementation of the suggestions mentioned above, the Committee hope that the Shipyard would show better working results.

211. *The Committee also feel that the administrative Ministry has not kept sufficient watch on the performance of the Shipyard or given it proper guidance. They hope that the Ministry would in future play an effective role to ensure better performance by the Shipyard.*

NEW DELHI;
March 3, 1967.
Phalguna 12, 1888 (Saka).

D. N. TIWARY,
Chairman,
Committee on Public Undertakings.

APPENDIX I

(*Vide* para 152)

Statement showing the Economics of the Graving Dock Project

(Rs. in lakhs)

1.	Estimated cost of construction of the Dry Dock		408·50
OUTGOINGS			
2.	(a)	Depreciation on capital outlay of Plant and Machinery at 5% on Rs. 120 lakhs	6·00
	(b)	Depreciation on Rs. 280 lakhs, *viz.*, investment on Dry Dock at 1/60th value annually (Estimated Life of Dry Dock taken as 60 years)	4·66
3.	(a)	Maintenance charges of Plant and Machinery at 1½ annually	1·50
	(b)	Maintenance charges of Dry Dock including maintenance dredging at the entrance	1·05
4.	Rent for leased land		0·85
5.	Interest at 7% annually, calculated for 7 years and distributed over a period of 15 years from the date of commissioning the Dry Dock		13·55
			27·61

INCOMINGS

6. *Heavy Repairs to Vessels*:

(a) Assuming 15 ships in a year with average docking time of 12 days per ship for repairs :

Labour and Supervision	Rs. 0·96 lakhs
Materials, Power and Fuel	Rs. 5·00 „
Profit at 25% of Cost	Rs. 1·49 „
	Rs. 7·45 lakhs

(b) Profit from heavy repairs at Rs. 1·49 lakhs each for 15 ships in a year . . . Rs. 22·35 lakhs.

7. *Light repairs to Vessels*:

(a) Assuming 20 ships in a year with average docking time of 4 days per ship for repairs :

	Rs. in lakhs
Labour and Supervision . . .	0·78
Materials, Power and Fuel . . .	0·32
Profit at 25% of Cost	0·25
	1·35

	Rs. in lakhs
(b) Profit from light repairs at Rs. 25,000 each for 20 ships in a year	5·00
8. Rental charges for Dry Dock at Rs. 6000/- a day for maximum docking days of 260 in a year	15·60
	42·95
Allow 60% efficiency only in utilising Docking days Rs. 42·95 lakhs × 60%	25·77
Estimated saving by discontinuing of docking of HSL ships in other Dry Docks at Rs. 45,000/- each for 6 ships in a year	2·70
TOTAL INCOMINGS	28·47

Profit Margin:

	28·47
9. Difference between Incomings and outgoings at 60% efficiency	27·61
	0·86

The total investment on the Project will be Rs. 406·50 Lakhs. It is anticipated that there will be an annual return of Rs. 28.50 Lakhs for the initial ten years which represents 7 per cent on the Capital investment. It is expected that this will progressively increase to 10 per cent after the initial ten years.

APPENDIX II

(*Vide* Para 155)

Composition of the Board of Directors of Hindustan Shipyard Ltd.

Officials:

1. Dr. Nagendra Singh—Chairman, Secretary to the Government of India, Department of Transport, Shipping & Tourism, New Delhi.
2. Rear Adm. B. A. Samson, Managing Director, Mazagon Dock Ltd., Bombay.
3. Shri P. N. Jain, Joint Secretary to the Government of India, Ministry of Finance, New Delhi.
4. Shri F. V. Badami, Director, Department of Technical Development, New Delhi.
5. Rear Adm. S. N. Kohli (I.N.).
6. Shri S. Soundara Rajan, Managing Director, Garden Reach Workshop, Calcutta.
7. Shri H. C. Raut, Managing Director, Hindustan Shipyard.

Non-Officials:

1. Shri Jehangir P. Patel, Industrialist, Bombay.
2. Shri Michael John, Trade Unionist, Jamshedpur.
3. Rear Adm. T. B. Bose, Technical Director, Messrs. Jayanti Shipping Co. Ltd., Calcutta.
4. Shri S. M. Wahi, Industrialist, Calcutta.
5. Dr. M. V. Krishna Rao, Kakinada.
6. Shri R. M. Dave, Industrialist and Businessman, Madras.

APPENDIX III

(*Vide* Para 180)

Statement showing the cost of construction of ships till 31-3-1966, *sale price and subsidy shipwise.*

Date of Delivery	Name of the Ship	V. C. No.	D. W. T.	Cost of construction	Sale Price	Subsidy	Percentage of subsidy to total cost
				Rs.	Rs.	Rs.	
	I. Vessels whose accounts have been closed as on 31-3-1966						
22-6-1955	M. V. Jala Vihar	V. C. 116	7000	234,44,992	170,31,065	54,13,927	23·09
29-12-1955	M. V. Jala Vijaya	V. C. 117	7000				
23-11-1956	M. V. State of Kutch	V. C. 118	8000	147,07,504	106,65,806	40,41,698	27·48
23-5-1956	M. V. Jala Vishnu	V. C. 119	7000	111,78,781	84,40,157	27,38,624	24·50
31-12-1957	M. V. State of Orissa	V. C. 120	8000	139,30,876	104,94,227	34,36,649	24·67
26-3-1958	M. V. Jala Vikram	V. C. 121	7000	113,35,102	84,91,911	28,43,191	25·08
28 7·1958	M. V. Jala Veera	V. C. 122	7000	119,46,395	85,92,452	33,53,943	28·07
	II. Vessels whose acounts have not been closed as on 31-3-1966						
26-11-1959	I. N. S. Dhruvak	V. C. 134	500GRT	29,19,808	24,81,837	4,37,971	15·00
4-12-1957	M. V. Atlantis	V.C. 135	4000	159,47,866	110,09,450	49,38,416	30·97

27-1-1960	M.V. Jayalakshmi	V.C. 137	5000	131,08,203	90,48,550	40,59,653	30·97
10-6-1959	M.V. Raj Kumar . . .	V.C. 139	6000	139,57,140	94,00,000	45,57,140	32·65
27-10-1959	M.V. Indian Industry	V.C. 142	6000	134,84,899	107,37,582	27,47,317	20·37
15-1-1951	M.V. State of Uttar Pradesh . . .	V.C. 145	9500	195,50,116	145,00,000	50,50,116	25·83
2-10-1951	M.V. Vishva Nidhi	V.C. 146	9500	190,79,759	145,00,000	45,79,759	24·00
18-5-1961	M.V. State of Rajasthan .	V.C. 148	9500	187,60,623	145,00,000	42,60,623	22·71
6-4-1962	M.V. State of Punjab	V.C. 147	12300	186, 03,984	142,93,356	43,10,628	23·17
14-9-1962	M.V. Vishva Shanti	V.C. 149	12300	176,38,658	142,94,524	33,44,134	18·96
28-1-1963	M.V. Vishva Prem	V.C. 150	12300	174,17,286	142,95,365	31,21,921	17·92
30-4-1963	M.V. Vishva Maya	V.C. 151	12300	174,00,699	142,96,275	31,04,424	17·84
23-9-1963	M.V. Vishva Mangal	V.C. 152	12300	176,46,039	142,96,181	33,49,858	18·98
28-12-1964	I.N.S. Darshak	V.C. 136	611DWT	225,07,658	191,31,509	33,76,149	15·00
24-11-1964	M.V. Jalakala	V.C. 153	12709	208,34,886	134,56,945	73,77,941	35·41
4-5-1965	M.V. State of Madhya Pradesh . . .	V.C. 154	12669	201,91,065	135,01,233	66,89,832	33·13
29-1-1966	*M.V. Jala Kendra	V.C. 155	12743	217,44,105	134,19,206	83,24,899	38·29
31-3-1966	*M.V. State of West Bengal . . .	V.C. 156	12743	219,88,636	133,94,233	85,94,403	39·09

*These include payment of customs regulatory duty of Rs. 960 lakhs per ship. According to the latest decision of Government, these amounts are now refundable. Hence, these amounts are to be deducted both from cost of construction and subsidy for these two vessels, viz., V.C. 155 and V.C. 156 If these amounts are deleted the percentage of subsidy to cost of construction for these two velssels works out to 35·44 and 36·31 respectively.

APPENDIX IV

Summary of Recommendations/Conclusions of the Committee on Public Undertakings contained in the Report

Sl. No.	Ref. to Para No. in the Report	Summary of Conclusions Recommendations
1	2	3
1	17—18	The Committee appreciate that to judge the efficiency of an organization or to suggest improvements therein, there is some advantage in having advice from outside experts especially when it is a new industry. But what is regrettable is that the Shipyard depended on its French and German (foreign) collaborators from 1952 to 1960 and all these years worked almost without a plan or a target. There was no serious effort made to improve its procedures and production processes during this period or thereafter. The Committee agree that indigenous know how and talent should be encouraged with a view to obviate dependence on foreign collaboration and consultancy services and therefore this firm had been selected. Nevertheless the course of events leading to the initial approval of appointment of M/s. Production Engineering Ltd. as consultants, the setting up of the firm of M/s. Daya Shankar & Associates and their appointment as consultants having collaboration arrangement with the same foreign firm, have not convinced the Committee about the merits of the appointment.
2	22	There has been delay in the submission of reports of the Consultants as per programme of work. However, the fee becomes payable irrespective of the fact whether the Consultants did their job according to the schedule or not. The Committee feel that the fee payable should have been related to the progress of work. They, however, hope that the Consultants' advice would be available to the Shipyard on all the

1	2	3
		programmed aspects within the stipulated amount of fee.
3	28	The Committee feel that the manner in which a large number of items of work have been made dependent on the advice of the Consultants, there is every likelihood of the unhappy experience with previous foreign consultants being repeated. The replies elicited during evidence also did not show much enthusiasm for implementation of the advice to be received. The management also seems complacent. It has advanced no satisfactory explanation for non-finalisation of the Third Plan Development programme by itself. The management should, take initiative to study its procedures and methods and effect improvements therein instead of depending on the Consultants. If it lacks capable personnel there should be no hesitation in recruiting such persons even if it has to look for someone outside India.
4	36	The Shipyard has been generally falling short of production tagets. From the various replies given by the Shipyard, it is clear that the reasons for shortfall in production were not analysed till March, 1964 when the 13th Schedule was drawn up. Although the Shipyard had to be subsidised heavily during these years it seems that Government took no serious notice of the shortfall in production and allowed the Shipyard to run at a heavy loss. The Committee recommend that in future reasons for shortfall in production should be analysed and pointedly brought to the notice of government and the Board in the year subsequent to the shortfall.
5	41	The Committee find that shortfall in production is generally attributed by the Shipyard to the unsatisfactory flow of materials. If flow of materials is taken as the major factor, it is surprising that no effective steps were taken to ensure or maintain the flow of materials. On the other hand as facts show the position was allowed to remain stagnant or even deteriorate year after year. It seems that the administrative Ministry also did not exercise effective control over the affairs of the Shipyard in this regard. Concerted efforts should be made to improve the production performance of the Shipyard.

1	2	3
6	45	The Committee regret to note that the information supplied by the Shipyard that the "time taken for the construction of repeat vessels of a series is progressively reduced" was misleading anasmuch as actually no reduction in construction time occurred.
7	49	The Committee feel that this state of affairs in the Shipyard should not be allowed to continue. They suggest that the organisational set up of the Shipyard should be reviewed thoroughly. The time taken in the different stages of construction should also be critically analysed with a view to fix standards and substantially reduce the time.
8	51	A comparison with the time taken in the berths in U.K. and Japan shows that the performance of the Shipyard in this respect is poor. The Committee appreciate that delayed receipt of materials resulted to low production of the Shipyard to some extent. It is, however, necessary that the procurement of materials and production processes in the Shipyard should be streamlined and output or productivity per man increased with a view to reducing the berthing period.
9	54	The Committee do not see any reason why even 15 years after nationalisation, the Shipyard has not been able to prepare schedules based on basic norms. The reasons put forward by the Shipyard for not laying down the norms are not convincing. The Committee suggest that if the necessary data supplied by the Consultants is not comprehensive it should be collected and norms laid down without further delay.
10	61	The Shipyard drew up the schedules without benefiting from its past experience or taking into account all the factors which might affect their implementation. It appears to the Committee that the management's approach has not been sufficiently realistic with regard to availability and adequacy of ship-building material and its own capacity. The Committee feel concerned not only with frequent changes of schedules which hamper smooth production but also the consequent discouragement to buyers in placing orders on the Hindustan

1	2	3
		Shipyard. A schedule that needs to be revised every year has hardly any meaning. The Committee recommend that while preparing schedules in future all the necessary factors should be considered carefully and once a time-schedule for constructing a ship is prepared, it should be adhered to unless extraordinary reasons beyond the control of the management prevail.
11	67	The Committee are surprised to note that the Shipyard accepted the order for constructing INS-Darshak with the approval of the administrative Ministry as early as 1953 when it had just been taken over from the Scindia Steam Navigation Co. Ltd. While the Committee appreciate the ambition of the then management to launch on the construction of a survey vessel, they cannot understand the failure of the management to equip itself for the work for which it did not have the necessary technical know-how.
12	70	For about 7 years from 1956 onwards protracted negotiations went on between the Shipyard, N.H.Q. and M/s. A.C.L./A.E.G. for preparation of detailed drawings. The Committee agree with the observation of the Bose Committee that one of the reasons for the delay in completion of the vessel was unnecessary insistence on the part of the Shipyard for preparation of detailed co-ordinated drawings for all the electrical and other installations. By doing so, valuable time was lost in unnecessary negotiations and diversion of energies which could have been fruitfully utilised for construction of standardised cargo vessels. Further, even when the construction of Darshak was in progress, the management did not keep itself informed about the work and failed to take charge of designs etc. when the French experts left the Yard. It again entered into an agreement with the same firm with whom their earlier experience had not been happy. This shows that even after making the initial mistake of undertaking the construction of a complicated type of vessel, the Shipyard did not fully realise its responsibility of completing the vessel expeditiously. It seems that the Ministry also did not take any special measures to expedite the construction. The Committee are not

1	2	3
		happy over the whole affair and hope that Government and the Shipyard will take necessary measures to perfect construction of standard vessels before accepting assignments of a complicated nature.
13	73	The Committee feel concerned to note that the productivity per man at the Shipyard should compare so unfavourably with the foreign Shipyards. It is unfortunate that the Shipyard should have failed to improve its productivity since it was set up in 1952. The country needs more and more tonnage. The Shipyard should make strenous efforts to increase its productivity in the coming years so as to keep pace with the performance of the foreign shipyards.
14	77	The Committee note that next to cost of materials, the overhead expenses constitute the largest single item in the total cost of construction of a vessel. While there has been a small rise in the cost of materials during the years 1964-65 and 1965-66, the rise in overhead expenses during this period has been abnormal. The Shipyard can economise in cost of construction by reducing their overhead expenses to the minimum. If, as stated by the Managing Director, the production of the Shipyard can be increased to 6 ships a year without any appreciable increase in overhead expenses as at present, there is evidently a considerable amount of under-utilisation of men and machinery at present. The Committee recommend that the management should direct its attention towards reduction in overhead costs.
15	81	The Committee are not convinced by the statement that at present the impact of old machines on low productivity is not significant. The Shipyard had not till recently made any investigation to assess the extent of low utilisation of machinery and the impact on low productivity due to the machinery being old and somewhat worn-out. The programme for replacement of old and worn out machinery was also not initiated in time. It is therefore not surprising that the Shipyard should have accumulated over a period of time old and worn-out

1	2	3
		machinery with very low utilisation. The Committee suggest adoption of a regular system of periodical assessment of machinery with a view to replacing inefficient and outmoded parts and machinery in time without allowing the efficiency of the Shipyard being impaired.
16	84	The Committee are surprised to note that the necessity of maintenance of log books to find out the details of utilisation of machinery had never been considered till the Audit pointed it out. In fact the Managing Director was not aware of the reply sent by the Shipyard to the Audit until the point was raised during evidence. The Committee recommend that the system of maintaining log books for each type of machinery should be introduced forthwith and utilisation and optimum capacity of each machinery should also be determined to improve the efficiency of the Yard.
17	86	The Committee consider the present method of estimation of scrap accumulation unsatisfactory in as much as there is no means of knowing whether the scrap arisings are decreasing or increasing. It is surprising that all these years the Shipyard management was satisfied with random reckoning. In order to judge the efficiency of the production processes, it would be necessary to weigh the steel scrap shipwise and efforts should be made to bring down the percentage of steel scrapped to steel used.
18	88	The commercial interests of the Shipyard require that its ships should be patronised by Indian private shipping companies. The Shipyard plans to increase its production to 6 ships a year from 1969-70 onwards. This should enable it to procure some orders from the private shipping companies also.
19	92	The Committee are unable to agree with the view expressed by the Secretary. What is not foreign exchange content is not necessarily indigenous material. On the contrary it includes labour, overheads and other expenses. If the foreign exchange content has come down, it was because the Shipyard failed to check other expenses, *viz.*, overheads, labour expenses etc. Even if the manufacture of 83 items is taken into ac-

1	2	3
		count, it will be found that their value is insignificent as compared to the large amount spent on building ships during this period. The Committee feel that had Government, instead of giving a high amount of subsidy to the Shipyard, given some incentive to the indigenous manufacturers, some of them would have come forward to undertake the manufacture of the imported equipments. The Committee trust that earnest efforts will be made to secure the manufacture of machinery and equipment indigenously.
20	97	The Committee note that in spite of the fact that the marine engine is the most costly imported item no serious efforts have been made by Government to get it manufactured within the country. The reason for delay in establishing such a project is the low priority that Government have given it. This delay has resulted in the Shipyard being required to import marine engines from abroad all these years thus involving drain on the country's foreign exchange resources. The Committee suggest that Government should provide all the necessary facilities for the early establishment and commissioning of this project. In any case, the Committee hope that the first of the engines to be produced by this factory will be available to the Shipyard by 1969.
21	103	The Hindustan Shipyard was taken over by Government of India from the Scindia Steam Navigation Company because of its vital strategic importance in emergencies. That seems also the reason for this industry being subsidised. If Government consider ship-building as an important industry, the Shipyard needs to be given greater priority in the matter of allotment of steel. Further, supply of steel from indigenous sources in larger quantities would ensure steady production in the Shipyard and obviate excessive dependence on foreign supplies which are not readily available and also save foreign exchange. The Committee hope that the supply of steel to the Shipyard would be planned in advance in consultation with the Ministry of Iron and Steel so that production is not hampered due to short supply or non-availability of steel in time.

1	2	3
22	110	While the Committee appreciate the difficulties experienced by Government in developing ancillary industries, they are not satisfied with the progress made during the last 10 years, *i.e.* since 1957 when the Ship Ancillary Industries Committee submitted their first report. As mentioned above, even now some of the main items of equipment have not been taken up for manufacture in the country. The appointment of standing Committee or *ad hoc* Committees to advise on the development of ancillary industries would not serve the purpose unless earnest efforts are made to tap prospective firms who could take up manufacture of these items.
23	112	The Committee hope that the negotiations between the Hindustan Shipyard and the Heavy Engineering Corporation, Ranchi would be expedited and the production of propellers commenced soon. Efforts should be intensified to get other imported items also manufactured indigenously. It should be possible to induce the public sector undertakings to undertake the manufacture of such equipment if no one else freely comes forward to do so.
24	121	It appears that the Shipyard does not maintain a proper record of stores and the decision to retain or dispose of accumulated stores is taken by the inspecting officers without proper consideration of their future utility. The Committee recommend that up-to-date records of stores should be maintained and the existing stores should be properly categorised. Stores should be categorised as unusable/surplus only after they have been so declared by a committee of senior officers.
25	124	In the case of Fire Accident, if the assumption of fire having been caused by throwing off of a lighted cigarette is correct, it would follow that in a strategic industry like ship-building security measures proved to be inadequate and further the person responsible for causing the extensive damage intentionally or unintentionally could not be brought to book. The time of five years, after the enquiry, taken in installing a fire hydrant system is also long. The Committee hope that security measures would be properly

1	2	3
		strengthened and the fire fighting arrangements improved so that similar situations do not arise in future.
26	128	It appears that for several years after the taking over of the Shipyard by Government, its stores department had not been organised properly. It is also surprising that till June, 1960 there was no Inspection Department in the Shipyard. This has resulted in an avoidable extra expenditure of Rs. 9 lakhs in the case of reconditioning electrical equipment. The Committee expect that the stores and inspection departments have since been properly organised to avoid the recurrence of such losses in future. The Committee also suggest immediate inspection of stores on receipt, so that defects in quality or shortage in quantity are noticed in time for remedial action.
27	138-39	In July, 1962 Government sanctioned a sum of Rs. 21·31 lakhs for purchase of plant and machinery but no further steps were taken for three years thereafter. In July, 1965 the Shipyard found that the prices had risen considerably in the intervening period and Government was therefore approached for a revised sanction for the machinery which were estimated to cost Rs. 51·48 lakhs. Though Government was not convinced about the reasons given by the Shipyard for the abnormal rise in the estimates, sanction was reluctantly accorded. Out of the sanctioned amount, a sum of Rs. 9·03 lakhs only was spent during the Third Five Year Plan period, as a part of the Shipyard's First Stage Development programme. The Second Stage estimate for purchase of plant and machinery was for Rs. 162·80 lakhs. The progress made in respect of the First Stage Development Programme itself was so slow that the estimate of Rs. 162·80 lakhs for the Second Stage obviously appeared to be unrealistic and was not sanctioned by Government. The Committee are unhappy to note that the development programmes formulated for execution during the Third Plan period practically remained on paper and valuable time of five years was lost without making any progress towards modernisation. The Committee hope that in future the Shipyard management will take due steps to imple-

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		ment the development proposals once these are sanctioned. Government should also exercise greater control over the Shipyard by obtaining periodical reports on implementation of plan proposals.
28	141	If sanction of the Development Programme for the Fourth Five Year Plan is further delayed there is every likelihood of the shortfall as occurred in the implementation of the Third Plan Development Programme being repeated. The Committee suggest that the Shipyard's plan proposals should be finalised without further loss of time and their execution commenced.
29	145	It appears that a period of 5 years was taken in coming to a decision whether the extension of the jetty should be towards the east or the west. The Port Authorities had in 1958 agreed to the extension of the jetty towards the east and there is no adequate evidence to suggest that they later on amended the sanction. The Shipyard by delaying the finalisation of this scheme till October, 1962 has only hampered its production programme.
30	154	Although the cost estimates of the Dry Dock project have since gone up, the Committee believe that a dry dock at Visakhapatnam can be operated as a financially viable project. It will fulfil the needs of the Shipyard as also of the ocean-going vessels plying along the maritime routes adjacent to the East Coast, and thereby earn sizeable amount of foreign exchange. The project has already been unnecessarily over delayed. The Committee suggest that it should be accorded a high priority and executed expeditiously.
31	160	The working of the Hindustan Shipyard shows that it has failed to make any improvement since nationalisation. In fact the matters have deteriorated. The administrative Ministry also does not seem to have guided or exercised proper control on the working of the Shipyard. It is quite possible that with the Secretary of the Ministry having been the Chairman of the Board of Directors, the Shipyard's management became complacent. The present arrangement has led to a diffusion of responsibility as between the Undertaking and the Ministry for the poor performance of the Shipyard. The Committee

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		recommend that the post of Chairman of the Board of Directors should be filled in by some suitable person other than the head of the administrative Ministry.
32	162	The Commitee consider it unfortunate that for nearly four years now the functions of the Director of Ship Construction and the Managing Director have been discharged by a single person. They feel that this has been a major reason for the overall unsatisfactory performance of the Shipyard. The post of the Director of Ship-Construction is of vital importance and the Managing Director has not been in a position to look after the duties of both the assignments. The Committee recommend that a competent and energetic person be appointed to the vacant post early.
33	168	It appears that a large number of persons are under-employed in the Shipyard. The Committee are surprised to note that attempts to rationalise the delineation of trades and job specifications are being made now although the circumstances demanded them much earlier. This work should be completed early.
34	169	In view of the existing surplus staff and average low utilisation throughout the past, the Committee hope that the programme of production of 6 ships a year would be achieved as early as possible with the existing level of staff. The management should also endeavour to secure more ship-repairing work so as to make fuller utilisation of the present manpower.
35	171	Detailed recruitment and promotion rules are necessary not only to ensure uniform application of rules by the Management but also to keep the employees informed of the existing procedures in unambiguous terms. A set of well defined rules also keeps the management free from allegations of favouritism and nepotism. The Committee are surprised to note that the management of the Shipyard does not consider it necessary to codify the rules. The Committee recommend that detailed recruitment and promotion rules should be framed by the Shipyard at an early date.
36	173	The Estimates Committee had in para 160 of their 52nd Report recommended that detailed

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		specifications for each job should be laid down by all the public undertakings. The Committee find no reason why detailed specifications for each job should not have been laid down by the Shipyard. They hope that this would be done now.
37	176	First and foremost thing essential for maintaining production without interruption is cordial relationship between the management and the workers and in order to do so a good negotiating machinery is a basic necessity. The Committee hope that the Shipyard will form Joint Management Council/Works Committee.
38	181	The element of subsidy is not only high but has also risen by about 100 per cent in respect of ships built recently. This shows that the Shipyard has failed to keep a check over its cost of construction. Payment of higher subsidies implies that the tax payer has to pay more and more for the failures of the management. The Committee suggest that the reasons for increase in costs should be analysed by experts not connected with the Shipyard and steps taken to bring them down.
39	184	The Committee consider that the principle of giving subsidy to cover all the excess cost of construction of a ship over the price received by the Shipyard is not desirable in as much as it does not give necessary incentive to the Shipyard to improve its performance. In the Committee's view, the buyer should also not be asked to pay appreciably more than that he would have paid for a similar ship constructed elsewhere. So far as the Shipyard is concerned, if any subsidy has to be paid to it, Government should lay down a norm for the purpose with an upper limit instead of paying in full the difference between the cost of construction and the sale price. The above procedure would save Government and the tax payer from bearing the entire burden of the deficiencies of the Shipyard and at the same time induce the Shipyard to reduce its cost of construction.
40	186	Although the shipowners might like to purchase ships on a fixed price basis, the Commit-

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		tee consider that, in the economic conditions prevailing in the country, the inclusion of an escalation clause in the agreements with the shipowners is desirable. Such a provision is also in consonance with the normal commercial practice in other trades. The Committee suggest that possibility of inserting such a provision in future contracts might be examined.
41	189	The Committee hope that to enable the Shipyard to fulfil its target of production, Government will be able to give necessary priority to the Indian Ship-building Industry by providing necessary financial assistance as also ensuring supply of ship-building material and equipment in time and in sufficient quantity.
42	206-07	It is seen that although the Cabinet approved the proposal to establish the Second Shipyard at Cochin in November, 1959, the work on the project has not yet commenced. About three years time was spent in negotiations with the ship-building firms in U.K. and other European countries without a success. During this period no efforts were made to contact any Japanese firm. It took another two years to come to an agreement with the Japanese firm, MHI. The report of the Japanese firm was submitted in April, 1966, but final decision regarding the size and scope of the project is yet to be taken. Due to the delay in the establishment of the Second Shipyard the country continues to depend mostly on foreign shipyards for augmenting its shipping tonnage. The Committee hope that Government would take a decision on the scope and size of the project and commence work on it soon. Early establishment of the Second Shipyard will be of great advantage to the ship-building industry in the country. With the establishment of the Second Shipyard, demand for marine engines and other ship-building requirements will increase. This in turn would induce indigenous maufacturers to undertake the production of the required equipments which they are reluctant to do at present. Indigenous manufacture of equipments, besides saving a considerable amount of foreign exchange, would also ensure a steady and timely flow of materials to

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		the Hindustan Shipyard as well as to the Second Shipyard.
43	208	The Committee feel that even the available resources were not utilised to the fullest extent due to lack of proper supervision at various levels. Their impression is that the organisation of the Shipyard is considerably weak. The persons at the top should show more drive and determination to get their orders executed. The second line of management which could be entrusted with efficient supervision of work is not effective. Strengthening of the organisational set-up with efficient persons is essential.
44	209	Considering the need for augmenting the country's shipping tonnage, the Committee feel that the Shipyard should be given high priority in the matter of release of required foreign exchange. This would in the long run be an investment and result in saving foreign exchange. The Government should also take adequate steps to develop indigenous manufacture of ship-building equipment.
45	211	The Committee feel that the administrative Ministry has not kept sufficient watch on the performance of the Shipyard or given it proper guidance. They hope that the Ministry would in future play an effective role to ensure better performance by the Shipyard.