HUNDRED AND FORTIETH REPORT

PUBLIC ACCOUNTS COMMITTEE (1988-89)

(EIGHTH LOK SABHA)

WHEEL AND AXLE PLANT, YELAHANKA

MINISTRY OF RAILWAYS (RAILWAY BOARD)

Presented in Lok Sabha on 15.12.1988
Laid in Rajya Sabha on 16.12.1988

LOK SABHA SECRETARIAT
NEW DELHI

December, 1988/Agrahayana, 1910 (Saka)
Price : Rs. 10.00

CORRIGENDA TO THE 140TH REPORT (8TH LOK SABHA) OF PUBLIC ACCOUNTS COMMITTEE

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(1988-89)

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INTRODUCTION

1. Chairman of the Public Accounts Committee, as authorised by the Committee, do present on their behalf, this 140th Report on Paragraph 9 of the Report of the Comptroller and Auditor General of India for the year 1985-86, Union Government (Railways) relating to wheel and Axle Plant, Yelahanka.

2. The Report of the Comptroller and Auditor General of India for the year 1985-86, Union Government (Railways) was laid on the Table of the House on 8 May, 1987.

3. In this Report, the Committee have *Inter alia*, observed that though the entire requirements of wheel and axles of the Railways were expected to be met mainly by Durgapur Steel Plant, it had not reached a production capacity which is anywhere near its rated one and that instead of taking some of the important measures suggested by various Committees, in particular the one relating to installation of an electric furnace, Government went ahead with a fresh investment for establishment of a new plant at Yelahanka.

4. In 1972 when the Ministry took decision to establish the new wheel and Axle Plant, there existed no justification for establishment of the plant and further, the justifications for locating the plant at Yelahanka are not valid, in as much as the location has not fulfilled the economic factors and both the raw materials and finished products are essentially transported between Yelahanka and the Eastern Sector of the country, resulting in avoidable transport and expenditure thereon. The Committee have also observed that the cost of establishment of the new plant was underassessed initially at Rs. 21 crores whereas the total cost has gone upto Rs. 146 crores.

5. The Report of the Comptroller and Auditor General of India for the year 1985-86, Union Government (Railways) was laid on the Table of the House on 8 May, 1987. The Committee (1988-89) examined the Para 9 thereof at their sittings held on 28 December, 1987, 27 January, 1988 and 10 February, 1988. The Committee considered and finalised the Report at their sitting held on 14 December. 1988. Minutes of these sittings of the Committee form Part II* of the Report.

6. For reference facility and convenience, the observations and recommendations of the Committee have been printed in thick type in the body of the Report and have also been reproduced in a consolidated form in Appendix V of the Report.

NEW DELHI
December 14, 1988
Agrahayana 23, 1910 (Saka)

AMAL DATTA,
Chairman,
Public Accounts Committee.

CHAPTER I

INTRODUCTORY

Paragraph 9 of the Report of the C&AG of India for the year 1985-86—Union Government (Railways) on Wheel and Axle Plant, Yelahanka is reproduced in Apprdix I.

A. Production of wheels and axles at Durgapur Steel Plant.

1. 2 The Durgapur Steel Plant (DSP) was built with the assistance of a consortium of British steel making firms and one of the main units of DSP is meant for production of special items for the Railways, such as wheels, axles, wheel sets, sleeper bars, fish plates etc. The rated capacity of the wheel and axle plant of DSP was 45000 wheel sets in 1963-64 and 75,000 wheel sets in 1970-71.

1.3 The entire requirement of wheels and axles of the Railways was expected to be met mainly by DSP and, to a limited extent, by the TATA Iron and Steel Co. Ltd. (TISCO). If the indigenous production failed to meet the requirement, the shortfall was met by import of wheels and axles.

However, at no time since its establishment, the DSP had reached anywhere near the capacity production. The production reached the highest level of over 22,000 sets per year in 1964-65 and 1965-66 (about 50% of the then rated capacity). In fact, the capacity of production of wheel sets at DSP had remained only an illusory figure right from inception of the plant. The table given in Annexure-II indicates the number of wheel sets produced indigenously in all the plants including DSP and imported during each of the years from 1962-63 to 1986-87.

1.4 The problem of the DSP were first gone into by the Pandey Committee in 1967. According to the assessment of this Committee the plant had not achieved its rated capacity of production due to the quality of steal supplied, inexperience of the staff, various defects that came up in the processes and finally the lack of certain essential machine tools. This Committee also recommended that the working of the plant be examined by a team of foreign and Indian experts well-versed in wheel steel making and processing that the inter-stage inspection by

research and Control be strengthend and that a proper system of production planning and detailed study to correct the defects in the existing bonus system, be instituted.

1.5 Based on the recommendations of the Pandey Committee. two experts from Britain (Messers KIRK and MONKHOUSE) studied the working of the plant and made, *inter-alia*, the following recommendations :—

(1) A clear policy decision should be taken on the re-establishment of discipline in the plant ;

(2) Supervisory staff should be re-organised;

(3) There was need for stronger disciplinary measures;

(4) The installation of 60 ton electric furnace with which the existing "H" furnace would be capable of covering the steel demands of the Wheel and Axle Plant;

(5) Introduction of bonus system of a more direct nature than the one already in operation; and

(6) A planned and preventive maintenance scheme should be installed so as to include the reconditioning and/or replacement of the plant.

1.6 One of the steps taekn for implementing the recommendations of the Pandey Committee and the two foreign experts (Messers KIRK and MONKHOUSE), the Ministry of Steel stated that apart from constituting another Committee, an inter-stage inspection was introduced and the incentive bonus scheme was modified.

1.7 Taking note of the failure of DSP to reach anywhere near its rated capacity, the Committee on Public Undertakings in their First Report (5th Lok Sabha—1971-72) recommended that there was need for a detailed inquiry into the working of this unit so as to find out the real reasons for abnormally low production so that remedial measures could be taken to improve the production performance. The Railway Convention Committee desired in their Fifth Report (1971) that the Committee were greatly disturbed to note that the Railways intended to set up a new Wheel and Axle Plant costing about Rs. 17 crores with a foreign exchange component of Rs. 5 crores when besides a capacity of about 3,000 wheel sets with TISCO, the DSP with a capacity of 45,000 wheel sets had obtained additional machinery to

increase the capacity to about 75,000 wheel sets per year. Since the actual production of supplies in 1970-71 was below 10,000 wheel sets necessitating an import of whee lsets costing about Rs. 8 crores and the Fifth Plan requirement of the Railways for wheel sets stood at about 76,000. the Committee recommended that before planning for the Fifth Plan demand the whole matter regarding increasing the capacity of DSP to its rated capacity should be gone into by a high powered technical committee. The Convention Committee did not accept the stand of the Ministry of Steel, that the capacity of DSP was of the order of 30,000 wheel sets per year only and stated that the high powered committee should go into the production capacity of DSP to examine whether it could be geared up to reach the maximum capacity to meet the full requirement. In the context of the plan for the Railways to set up a new wheel set plant, the Committee observed that it would be far more economical if the DSP could be put on its feet and brought to its rated capacity by making necessary re-adjustments.

1.8 Based on these recommendations a Technical Committee consisting of Shri K.K. Berry, Additional Member, Mechanical Railway Board and Shri A. C. Banerjee, Director, Technical, SAIL was constituted in June 1973 to go into the potential of DSP and to determine whether the plant could be geared up to produce its original rated capacity. According to the Berry Commitee, the reasons for the low production :

(1) Industrial relations and go slow attitude of staff in wheel and axle plant both in production and maintenance and repair work resulting in low productivity.

(2) Heavy rejections due to indigenous refractaries being used in steel making and quality of indigenous refractaries being poor causing erosion and inclusion.

(3) Lack of quality consciousness on the part of workers.

(4) Delays due to breakdown in mechanical and electrical equipment, heavy absenteeism, very high incidence of operational delays.

(5) Existing incentive scheme was not satisfactory.

1.9 After examining in detail the record's and past performance, the Committee came to the conclusion that the optimum feasible capacity of the plant was 40,000 wheel sets for a year in the foreseeable

future, though it was difficult to say when this out-put could be achieved in view of the high rejection rate which was likely to persist. The Committee also observed that the plant capacity could be increased to 49,500 wheel sets with additional balancing facilities, but that the expansion could be thought of only after production of 40,000 wheel sets per year was reached.

1.10 Taking note of the absence of any improvement in the production of wheel sets at DSP and also the proposal of the Railways to set up a new wheel and axle plant, the Cabinet Committee on Exports directed the constitution of a Committee to examine and recommend the measures needed to step-up the production of wheel sets at DSP. In January 1976 the Ministry of Steel constituted a Committee under the Chairmanship of Shri Mantosh Sondhi, Secretary, Department of Heavy Industries. The Committee in the report presented in December 1976, concluded that the DSP was capable of achieving a production of 40,000 sets as decided by the Berry Committee. After analysing the rate of rejections, delays and productivity at different stages, the norms required to achieve a production of 40,000 sets and the norms already achieved, the Committee felt that the DSP had an achieveable production capacity as under :—

1976-77	—	18,000
1977-78	—	24,000
1978-79	—	30,000
1979-80	—	35,000
1980-81	—	40,000

1.11 To ensure that there was no slippage from the above production target, the Committee *inter alia* recommended an expeditious change from diesel to electric chargers, organisation, of a technology cell for evaluation of needs for modernisation, replacement, renewals etc., introduction of a variable multi-spindle drilling and tapping machine (from the angle of export of wagons), introduction of an electric furnace as recommended by the Kirk and Monkhouse Committee, the necessity for Railways to place composite orders for wheel sets instead of loose wheels and axles, etc. The Committee also took note of the fact that the then existing price realisation by DSP was less than half the cost of production and 1/3rd of the landed cost of similar imported wheel sets and observed in this connection that it would be unreasonable to expect any production unit to increase its production and sustain at high level unless it was able to realise reasonable prices for its products. The Committee hence recommended that the question of price should be

settled between the Railways and the Department of Steel expeditiously by referring this matter to a separate body in accordance with accepted rules of business.

1.12 On the action taken for implementing these recommendations, the Ministry of Steel stated that a time bound replacement of the conveyors had been introduced, adequate stock of imported spares was being kept "to the extent feasible", arrangement for reconditioning of the machines improved, balancing facilities procured, diesel charger converted into electric, new drilling and tapping machine procured etc. The question of installation of an electric furnace (needed for improvement of the quality and quantity of steal for wheel production) was however not pursued. The Ministry also stated that for price revision, had taken place since the publication of the SONDHI Committee Report.

According to Ministry, the Railways pay for the wheel sets at the following rates per wheel sets to DSP and WAP.

	DSP (20.3 size)	WAP (22.9 size)
1984-85	Rs. 23,789	Rs. 26,800
1985-86	Rs. 25,594	Rs. 31,000
1986-87	Rs. 30,016	Rs. 33,000

1.13 Not with standing the reported implementation of the measures sggested by the Pandey Committee, the foreign experts, the internal Committee constituted in 1973 and the Sondhi Committee constituted in 1976, the production at DSP had not shown improvement. On the other hand it deteriorated over the years as will be evident from Annexure-II.

1.14 The Secretary, Ministry of steel observed during evidence in this connection that the Government have had various reports, indentifying the problems and what needed to be done with the equipment etc, The Secretary, further observed that some of these problems have been resolved either by modifying the equipment or by replacing it and some problems still remained to be resolved and were expected to be sorted out in the modemisation plan of the DSP. On the present condition of the plant, the Secretary conceded that the condition of the equipment has still not been brought up to the level where it can work without break-down though the eapacity of 40,000 wheel sets must be regarded as the achievesable capacity.

1.15 On the specific causes for low production of wheel sets, the Secretary, Ministry of Steel, observed during evidenci that the steel for making wheels came from a 120 tonne furnace whose entire production was dedicated for the manufacture of wheels. For the axles, the steel came from another furnace, a part of whose production went for making axles and the balance for making other steel items. The second furnace was originally of 200 tonne capacity but during expension of DSP, it was uprated to 240 tonnes, though the effective capacity was only 220 tonnes. This furnace was meant to operate 300 days in a year and do 2½ heats per day. In actual practice the second furnace did not achieve the capacity utilisation which theoratically it was capable of, heat weight failed to reach the level of 120 tonnes and the number of heats per day was also less than 2½ with the result that whereas the rated capac ty was 90,000 tonnes per year, the actual production was only 30,000 tonnes a year.

1.16 According to the Secretary, Ministry of Steel, the second major problem affecting the production of DSP was the condition of the equipment, even though in t e initial years, the equipment being new, there was no reason why it should not have produced to full capacity. The Secretary further observed that another problem faced in this connection was the difficulty in procuring spares for the equipment because the concerned companies in foreign countries had closed down their production and spares were to be made in India without the engineering drawings.

1.17 The other area, attributable to the low level of production by DSP, the Secretary, Ministery of Steel observed in evidence, pertained to the whole issue of incentives and bonus and labour relations. Almost all the Committees that went into the reasons for the low production of the wheel and axles plant had commented on the fact that the incentive scheme was not sufficiently attractive to induce people to produce more notwithstanding the changes that were made in the incentive scheme from time to time. Initially the incentive/bonus was payable on production achieved during a particular month above a certain level of production determined for the purpose. According to the Secretary, Ministry of Steel and Mines it was found that due to a variety of reasons, the workers found it difficult to achieve the expected level of production with the result that the bonus scheme did not act as an incentive to strike hard to produce more. The scheme was subsequently converted into a weekly one but the "Weekly Group Related Incentive Scheme also failed to

achieve the desired results. The scheme was then converted into a daily incentive scheme based on each individual's out-put in the hope that one individual worker should not suffer on account of shortcomings in power and other problems. However according to the Secretary, for some reasons it was found that even this did not provide sufficient attraction to the workers to produce above a certain level. In this regard, Secretary observed in evidence that "Whatever may be the reasons, despite the continuous changes in the pattern of the incentive scheme, it has not led to a very sharp increase in the productivity of the plant."

1.18 Yet another factor for short fall in production in DSP has been the high rate of rejections. Whereas the rate for rejection has been prescribed at 4.7% in the project report, and was revised to 11% for wheels and 22.4% for axles by the Sondhi Committee, the actual rate of rejection at DSP had been much higher and was at times as high as 58.5%.

1.19 The Committee enquired from the Secretary, Steel and Mines what were the reasons for the large scale rejection and what were the quality control methods in operation in the DSP. The Secretary stated during evidence in this regard that the first point in this connection related to the quality of steel. According to the Secretary, after the process of machining of the wheel started, certain defects in the steel, in the shape of some alien material getting included in the steel or development of some holes etc., emerged leading to rejection. The Secretary conceded in this connection that the process adopted at DSP could not ensure production of fully clean steel and that the Ministry was thinking of modernisation of the technology to make the steel as clean as possible. In reply to the specific query as to why steel of the prescribed quality could not be obtained though special furnaces have been commissioned to meet specialised requirements, the Secretary stated that though the equipment was capable of producing the steel of required quality, the technological discipline in the DSP was not of a sufficiently high level. On the feasibility of identifying and eliminating impurities in the chemical composition of the steel, the Secretary stated that for the steel to be tapped, it should be at a certain temperature and that when various basic technical requirements affecting the quality of steel were not complied with, the quality of steel was affected. On the feasibility of rectifying the defects during the forging process, the Secretary stated that certain types of defects could not be rectified at the time of

machining. Explaining the various technical processes involved in manufacture of wheels and axles, the Secretary stated that as far as inclusion of refractories in the steel was concerned it could be known only after casting the steel. The Secretary, Steel and Mines added that apart from the problem of the quality of steel the second factor which affected the level of rejection was the problems in forging, resulting from the condition of the hammer which became a problem after some years and to some extent it was also a problem relating to the skill of the operator. The Seretary, however. stated that the existing equipment with its defects was capable of a higher level of production.

1.20 The Committee note that in 1963-64, the DSP had a rated capacity for manufacture of 45,000 wheelsets which was raised to 75,000 wheelsets by 1970-71. The capacity of the plant was reviewed and refixed at 40,000 wheelsets by the Berry Committee in 1973. The Technical Committee established in 1973 to go into potential of DSP came to the conclusion that the optimum feasible capacity of the plant was 40,000 wheelsets a year. Subsequently the Sodhi Committee constituted in 1976, determined its achievable capacity at 18,000, 24,000 30,000, 35,000 and 40,000 wheelsets in 1976-77, 1977-78, 1978-79, 1979-80 and 1980-81 respectively.

1.21. The Committee note with dismay that the production of wheelsets was much below the rated capacity and even when the original capacity was derated in 1973 on the advice of the Technical Committee the actual performance during 1984-85 to 1986-87 was between 6.5% and 10.5% of the derated capacity of 40,000 wheel sets.

1.22. The Committee note that the Government has consistently failed to implement fully the recommendations of the varions Committees for increasing production. As early as 1967 the Kirk nnd Monkhouse Committee had recommended the installation of an electric furnace and this recommendation was reiterated by subsequent Committees also. The Sodhi Committee reiterated in 1976 the same recommendation for installation of an electric furnace for production of clean steel but so far the electric furnace has not been installed. The recommendations of the Sodhi Committee for the establishment of a technology cell for evaluation of needs for modernisation, replacement, renewals etc had also not been implemented. Further, the Sodhi Committee observed that the then existing price realisation of DSP was much less than half the cost of productioa and 1/3rd of the landed cost of similar wheelsets and also viewed that it would be unrcasonable to expect any production unit to increase

production and sustain it to the high level without realising reasonable prices. In the circumstances, the need of settlement of the price to be paid by the Railways by referring the matter to a separate body was recommended by Sondhi Committee.

The Committee regret to note that no steps were taken for installation of a new electric furnace, improving the price realisation or implementing various other measures recommended for improvement of production at DSP. Instead, the Government went ahead with the establishment of a new wheel and axle plant at a very high cost to the exchequer. The Committee are still not convinced whether the rate now paid for wheel sets to DSP is reasonalbe and meets the cost of production. The Committee are of the consiedred view that had the recommendations of various Committees constituted for the improvement of production at DSP implemented with due promptitude, the establisment of another WAP at Yellahanka could have been avoided. At this stage they can only hope that the Government would draw a lesson from this sad experience and would exercise a prudent caution in establishing new projects of huge financial value so as to ensure that the meagra resourses of the country are not wasted in projects which would not be needed if steps are taken for improving performance of already installed facilities.

The Committee note that steel manufactured at DSP has not been fully clean resulting in substantial rejection at the time of casting of wheel sets and axles. They were also informed during evidence that one of the furnaces has been able to achieve less than 1/3rd of its rated capacity. Other dominating reasons for low production at DSP were poor labour output despite modifications in incentive scheme and poor quality of equipment like hammer. The Committee note in this connection that the Committee on Public Undertakings had gone into the working of the DSP on more than one occasion and had made several recommendations. Lameutably the Government failed to implement the recommendations of the varions Committees, technical and otherwise with the result that the Plant continued to work at low capacity and investment on a much larger scale was made instead of much smaller investment required to improve production in DSP's wheel and axle plant.

To ensure attainment and maintenance of self-sufficiency in production of wheels and axles, it is imperative that all possible steps are taken with due promptitude so that DSP is able to manufacture to capacity of 40,000 wheel sets. The Committee hope that the Government would draw a time-bound programme for optimum utilisation of the capacity

of DSP after critically analysing the reasons for shortfall. It is also essential to clearly montior the implementation of the programme at an appropriately higher level. The Committee would also like to be apprised of further developments in this regard.

B Need for a new Wheel and Axle Plant

1.22A The Committee desired to know from the Railways whether the full capacity available for production at DSP was fully utilised by the Railways before steps were taken for import or for establishment of the new plant, The ministry of Railways observed during evidence in this connection as under :

> "As far as the placement of orders on DSP is concerned, I would like to recapitulate the system that is being followed by the Ministry of Railwas and the Ministery of Industry. In the middle of the year preceding the financial year for which order had to be placed. a statement of requirements by the Ministry of Railways is made out and presented to the Ministry of Steel and Durgapur Steel Plant authorities, to enable them to choose from the equipments required by the Railways for the succeeding financial year. The list prepared by them is scrutinised by them the DSP authorities and at a meeting, a commitment from the DSP, as to their ability to manufacture out of the total list of requirements, what is possible in DSP is made out. On the basis of that commitment the offer is placed as a first priority on the DSP. The other action to cover the balance requirements is taken there after. Therefore, the capacity at DSP and its full utilisation receives the first priority from the Ministry of Railways."

1.23 The Ministry also gave statistical data, set out in Annexure III. to indicate that the full potential/capacity of DSP, is utilised invariably by the Railways.

1·24 The Railways proposed in 1972 the setting up of its own wheel and axle plant to supplement the capacities of DSP and TISCO. The proposal was cleared by the Ministry of Industrial Development and Steel also. The Planning Commission also recognised the need for setting up of additional capacity to manufacture wheels and axles and asked the Railways in July 1972 to prepare a detailed feasibility study/ project report on the proposal. The site for the plant was determined at Yelahanka in 1973-74. A collaboration agreement was entered into by the Railways with a foreign firm in April, 1974 for technical know-

how and setting up of the wheel shop. The work on the project was commenced by the Railways on an urgency certificate issued in August, 1974.

1.25 The approval for financial commitment for the project was taken from Parliament through the supplementary demands for Grants for the year 1973-74. The reasons for setting up the plant were stated at that time as under :

> "Railways' requirements of wheels and axles are practically met by Hindustan Steel, Durgapur and Tata Iron and Steel Company. Indigenous production being insufficient, Railways import 40 to 50 per cent of wheels, axles and tyres costing about Rs. 60 to 70 crores per annum. It is, therefore, proposed to set up a public sector wheel and axle plant .."

1.26 Based on the budget provision, the execution of the work on the project was taken up by the Railways at Yelahanka in Karnataka State and a contract for earthwork levelling and forming banks awarded in September 1975. [The execution of this work came up for examination by the PAC and their recommendations are contained in the 45th Report of Seventh Lok Sabha (1980-81.)]

1.27 While considering the annual plan provision for the project for 1976-77, the Planning Commission suggested in 1975 to the Railways to re-examine the need for setting up the proposed wheel and axle plant in the context of the increased production of wheels and axles at DSP. The Planning Commission also sought the views of the Department of Steel on the maximum achievable capacity of DSP and the possibilities of increasing the output to meet the demands of the Railways. It was in this context that in January 1976 at the instance of the Cabinet Committee on Exports, the Sondhi Committee (mentioned in para 1.10 ante) was constituted to examine the question of increased production of wheel sets by DSP. As already observed, the Sondhi Committee had assessed the capacity of DSP for production at 40,000 wheel sets, equal to 80,000 wheels and 40,000 axles. The Committee also estimated the production capacity of TISCO at 7,900 wheels and 9560 axles.

1.28 For implementing the Corporate Plan of the Railways for the period 1967 to 1989, the Railways assessed in 1975-76 that the requirement of wheels and axles by the end of the Sixth Plan (1983-84)

would be of the order of 1,96,220 wheels and 77,162 axles. After taking into account the production capacity of DSP and TISCO, the Railways expected a short fall of 108320 wheels and 27,602 axles. In the circumstances, the Railways recommended the setting up of the new wheel and axle plant with a eapacity of 70,000 wheels and 23,000 axles per anuum, leaving a shortfall of 38,320 wheels and 4,602 axles per annum. This shortfall was proposed to be covered by future expension of indigenous capacity.

1.29 In the context of the above projections given by the Railways, after discussions with the Ministry of Railways, the Planning Commission accepted the wheel section the project as recommended by the Railway Ministry. However, in so far as the axle section of the project was concerned the Planning Commission recommended (April 1977) that it should be deferred by 2 years, unless it was demonstrated by detailed market surveys and serious enquiries that surplus that would arise by not deferring the section, could be exported without difficulty and the export was economically attractive. They Planning Commission also agreed to the project being posted to the World Bank for assistance.

1.30 Subsequent to the above developments in the meeting held on 8 February 1978, while considering a note of the Planning Commission on the Railway's annual plan for 1978-79, the Cabinet Committee decided that a Committee composed of the Finance Minister, the Railway Minister, the Minister of Steel and Mines and the Deputy Chairman, Planning Commission should examine whether a new wheel and axle plant was necessary and in doing so, should go into the question of full utilisation of the available capacity of Durgapur Steel Plant. The Cabinet Committee later approved in its meeting held on 5 October, 1978 the proposal of the Railway Ministry to set up the new plant at Yelahanka with an estimated annual capacity of 70,000 wheels and 23,000 axles. The inclusion of the project in 1978-83 plan and the outlay for it provided in the 1978-79 annual plan were also approved.

1.31 Asked to indicate the factual position relating to the number of wheel sets, wheels and axles that were indigenously produced at various centres and were imported, the Ministry of Railways gave figures separately for wheel sets, axles and wheels. The data has been converted into wheels and axles as in the table iven below :

Wheels

Indigenous Production

Estimated Need	DSP	TISCO	WAP	Total	Qty Imported	Grand Total of wheels procured
1982-83 1,18,032	21737	8	—	21,745	70,791	92,566
1983-84 1,06,329	19466	—	—	19,466	1,15,704	1,35,170
1984-85 86,603	11057	—	2374	13,431	68,622	82,052
1985-86 75,288	23052	—	21032	44,084	28,780	72,864
1986-87 1,46,870	25400	673	47556	73,629	46,649	1,20,278

Axles

Indigenous Production

Estimated Need	DSP	TISCO	WAP	Total	Qty. imported	Grand Total of wheels procured
1982-83 56,316	9842	4	—	9846	27812	37658
1983-84 46,637	9198	3684	—	12882	28784	41666
1984-85 31,131	5679	9343	2988	18010	15617	33627
1985-86 35,109	7896	11461	16665	36022	3056	39078
1986 87 70,528	8528	8982	28279	45789	23000	68789

1.32 The Committee have been informed that TISCO was supplying wheels upto 1981-82, where after it stopped manufacturing these, because their plant had become old.

1.33 The Committee note that the actual requirement of the Railways between 1970-71 and 1979-80 was not more than 22,000 wheel sets per annum. They, therefore, are of the opinion that there was no justification whatsoever in 1972 initiating the establishment of a new plant and there was failure at all levels in not judging the requirements realistically.

1.34 While assessing the need for establishment of the plant in 1975-78 the requirements of wheels and axles respectively were assessed at 1,96,200 and 77,162 at the end of 1983-84. The Committee, however, note that the actual procurement of wheels and axles was much less than the

assessed figures. They are of the view that the project for setting up a new wheel and axle plant was approved on the basis of overrated requirement. At this belated stage the Committee can only express the hope that the Government would adequately strengthen their project planning machinery in future and ensure that requirements are realistically and correctly assessed and mistakes of this type are not repeated in future

C. Location of Wheel and Axle Plant

1.35 The decision to set up the new wheel and axle plant at Yelahanka was taken in 1973-74. According to the Railways, the following factors are taken into account for the selection of a site for a plant of this nature :--

(i) Abundant availability of cheap electricity;

(ii) Easy availability of scrap steel from Railways and Steel Plants, etc., and convenient rail and other transport facilities, and

(iii) Proximity to industrial areas for supply of tools, equipment industrial gases and foundry material etc.

1.36 The Committee have been informed that a comparative study with reference to the above factors was conducted as a result of which Government came to the conclusion that an annual saving of Rs. 14.8 lakhs on electricity and Rs. 6406 lakh on transportation would be effected by establishing the plant at Yelahanka instead of at other typical central locations like Nagpur. The cost study report (Annexure IV) indicated that the cost of operations had been worked out on the basis that ingot steel would mainly be obtained from Bhadrawati in Karnataka.

1.37 On the availability of abundant quantity of electricity, the Committee have been informed that an assurance was received at the level of Secretary, Mysore State Electricity Board in December 1972. No reply was given to the specific enquiry by the Committee as to whether any other State Government was consulted in regard to the feasibillty of supply of adequate power if the plant was located in any other State. The Committee find that the blooms required for the factory at Yelahanka are received, not from Bhadrawati with reference to which the economies in cost of transportation had been worked out but mostly from the Alloy Steel Plant at Durgapur. In regard to the utilisation of the end products of the WAP, the Committee understand that while wheels and axles are sent to the workshops of the various Zonal Railways, the composite wheel sets are sent mostly to the 10 wagon building factories of which 7 are situated in the eastern sector (6 in West Bengal

and 1 in Bihar) and 2 in the northern sector (Rajasthan and Delhi). Thus, in effect, both the raw materials and the end products are being mostly transported between the eastern sector and Yelahanka. In regard to rate charged for power supply the representative of the Ministry during evidence stated :

> "As far as the rates are concerned. it is true that at that point of time, they were one of the lowest; the situation has changed today. Today their rates are not the lowest."

1.38 The Committee enquired whether it was not the practice of the Planning Commission to examine the location of the plant under its consideration. The Secretary, Planning Commission stated :

> "About any specific project appraisal, the Planning Commission would examine all the relevant aspects of the location. But this was a case in which this had obviously not been gone into. But, I would guess that this would be much less relevant than the question of availability of power for melting the scrap and so on."

1.39 In a subsequent written note to the Committee the Planning Commission stated that neither in 1972 when the Planning Commission recognised the need for the project nor in early 1977, while appraising the project, the question of location was examined as an issue by the Planning Commission.

1.40 According to the Railways, the factors to be considered for selection of site for a plant of this nature are abundant availability of cheap electricity, easy availability of steel from steel plants, convenient transport facilities and proximity to industrial areas for supply of tools etc. The Committee have been informed that these factors were fully taken into account when the decision was taken to establish the plant at Yelahanka. The Committee, however, note that no State Government other than that of Karnataka seems to have been consulted on the availability and supply of electr:city. The cost of operations had also been assessed on the basis of supply of steel from Bhadravati in Kanataka.

There has, however, been no supply of steel from Bhadravati. But on the other hand steel is obtained mainly from Durgapur in the East. What is more disturbing is that the end product is being transported essentially to the same area from where the raw materials are brought. The Commi-

ttee derire to know whether the Ministry of Steel was contacted for supbly of steel from Bhadravati and whether any assurance for supply was given. The Committee also desire to know at what point of time it was clear that supply of steel from Bhadravati was not feasible and why a review of location with reference to the source of supply of raw material was not conducted.

1.41 The Committee also note that the assurance for adequate power supply was not taken from an appropriate level viz. State Government and was not thus implemented Further, the cost of power supply was no longer economical in Karnataka. The Committee regret to note that none of the factors relevant to location of the plant of this nature were fulfilled, with the result that location of the plant at Yelahanka is resulting in avoidable transportation of raw materials and finished products between the eastern sector and Yelahanka.

1.42 The Committee are surprised that the Planning Commission which ought to have examined the location of the plant did not critically examine all the relevant factors and the Committee cannot help remarking that the Planning Commission functioned as a passive observer to the decision regarding location of the plant. This leads the Committee to an inevitable conclusion that there was a total failure of planning at all levels and no serious *thought* was given to all the relevant fuctors before taking a final decision to establish the plant at Yelahanka. At this stage the Committee can only hope that the Government would be careful in future in giving approval to projects which should be financially viable and also in overall financial interests of the country.

1.43. When the sanction for the new plant was obtained in 1975-76, it was assessed that the need for import would arise only when the requirement exceeded 1.7 lakh wheels per annum. The Committee however, note that notwithstanding the establishment of a new plant, Railways continue to incur substantial expenditure in the form of foreign exchange for import of wheels, axles and wheelsets. The total expenditure in this regard during the 5 years from 1982-83 to 1986-87 is reported to be Rs. 148.6 crores. The Committee are of the opinion that the expenditure in foreign exchange on this account can be avoided if effective steps are taken to optimise production of wheelsets particularly at the DSP. Gross under-utilisation of capacity within the country and large scale import of

wheelsets are indicative of the lack of concerted effort on the part of the Government to make full use of the facilities already created at considerable cost for production of wheelsets. The Committee can hardly overemphasise the need for avoiding such situations in future and urge upon Government to make serious efforts to improve indigenous production of wheelsets particularly at DSP. The Committee would like to know the steps taken by Government in this direction.

CHAPTER II

PROJECT IMPLEMENTATION

A. Cost of Project and Timely Completion

2.1 According to the information furnished to the Committee in 1980-81 the case of the Railways for setting up of a wheel and axle plant was approved in principle by various Ministries and the Planning Commission by July 1972. The overall investment was then estimated at Rs. 21 crores as mentioned in the reasons for setting up of the plant in the Supplementary Demands for Grants in the Budget of the Railways for 1973-74. The Railway Board approved, in principle, the setting up of the plant on 16 August. 1974. An abstract estimate prepared by the Railways in June 1975 assessed the cost of the project at Rs. 38.6 crores, an increase of Rs. 17.6 crores over the cost indicated to Parliament in the Supplementary Demands for Grants for 1973-74. The estimated cost of Rs. 38.6 crores was sanctioned by the Railway Board in November, 1977.

2.2 A further revised estimate for the project was prepared in October 1980 when the cost of the project was estimated at more than Rs. 129 crores. The PAC had observed in this connection in their 41st Report (7th Lok Sabha—1980-81) that one of the reasons for the higher estimates in later years was that the estimates were not prepared realistically in ctially and that the delay in execution of projects had not only pushed up the cost of the plant several-fold but also had resulted in a serious drain on the foreign exchange resources.

2.3 The revised estimate was sanctioned in February, 1981 at a cost of Rs. 129 crores. The further revised estimate for the project amounting to Rs. 146 crores has also since been santioned in July 1985. According to the Ministry of Railways, increases in cost in 1980-81 and in 1985-86 were mainly due to (i) escalation in cost to the extent of Rs. 59.94 crores, (ii) increase in scope of work to the extent of Rs. 27.04 crores and (iii) increases in general charges to the extent of Rs. 3.89 crores.

2.4 On the contributory causes for the increase in cost, Audit has analysed certain features as under :

"(a) Under civil engineering works, an increase of Rs. 14.9 crores out of Rs. 16.5 crores was due to increase in floor area of administrative buildings, shops, and inclusion of additional buildings for control room, diesel generating sheds more number of quarters, etc Under other items, such as Hospitalsi. Training School, Furniture etc. there was gross under-estimation and the provision was increased from Rs. 0.78 crore to Rs. 3.89 crores.

(b) In respect of plant and equipment there was an increase of Rs. 62.9 crores. The original estimate was revised to provide for variation in number of machines to be procured, type of equipment, flexibility to suit further production requirements, improved designs, etc.

(c) Similarly, under 'electrical works' an increase of Rs. 8.87 crores become necessary as "at the stage of framing abstract estimate clear idea of final layout of the plant and also the number and scope of equipment to be installed was not available."

2.5 Explaining the cost escalation and scope of work the Chairman, Railway Board stated during evidence that the abstract estimate was originally prepared in 1975 at the then prevailing price and that because it took time for clearance by the Planning Commission, the Ministry etc, the estimate of the cost rose to Rs. 129 crores Regarding increase in the scope of the project the Chairman, Railway Board intimated that there had been certain increases in scope of the prjoect and that it had to be recognised that such projects were not normal experience of the Railways as these projects are established once in a while and it was quite possible that despite all the wisdom their estimates were still not as realistic as ultimately the prices that were found to prevail.

2.6 The statement below indicates the budget provisions as well as actual expenditure on the project since 1980-81.

Year	Anticipated cost	Budget provision	Revised estimate	Final allotment	Actual expr. for the year	Actual cumulative expenditure
1	2	3	4	5	6	7
	(To end of 1979-80)				(Rs. in crores)	
1979-80						9.14
1980-81	38.39	15.00	15.00	15.02	15.20	24.34
1981-82	129.65	39.75	39.75	36.66	35.94	60.28
1982-83	129.65	30.00	54.40	54.00	51.17	111.45
1983-84	141.29	19.40	19.40	19.40	16.79	128.24
1984-85	149.05	11.84	11.84	11.84	9.61	137.85
1985-86	149.05	5.50	5.50	5.50	3.67	141.52
1986-87	146.00	2.00	—	—	1.50	143.02
	Upto Oct. 86 (—1.68)					

2.7 The Railway Board had informed the PAC in December 1980 (when the Budget for 1981-82 was under preparation) that the wheel shop was expected to commence production by June 1982 and the axle shop by June 1983. The statement above would, however, indicate that to the end 1980-81 the actual expenditure incurred amounted to Rs. 24.34 crores and only a sum of Rs. 39.75 crores had been provided for in the budget estimate for 1981-82, leaving a requirement of over Rs. 65 crores to be provided for in 1982-83 and subsequent period. In the context of the above, Audit has pointed out that notwithstanding the commitment made to the Committee by the Ministry in December 1980 there was no likelihood of production commencing from June 1982.

2.8 Explaining the delay in construction work, the Ministry of Railways (Railway Board) has stated that the commitments given by it to PAC in December 1980 were in good faith and on the basis of the plans and expectations which existed at that point of time and that, due to circumstances which could not have been foreseen then, the construction got delayed. Some of the major reasons for delay were stated to be :

(i) Unusually heavy rains in early months of works.

(ii) Delays in design and execution of the Civil Engineering works.

(iii) Labuor strikes in the furnace suppliers plants and also a strike in HMT plant.

(iv) Shortage of cement during 1981-82.

(v) Unique and complex nature of construction which presented some unforeseen problems during construction.

2.9 Asked to clarify how at the time of evidence before the Committee, the Ministry committed for completion of the project in 1981-82 even though adequate provision had not been made, the representatives of the Ministry stated that the assurance given at that time could have been with regard to the factory structures. The Ministry stated :

"Tenders for the wheel unit have been called by June 1980 and on the basis of self-imposed target, the time given was 21 months from the date of award of tenders for the completion of civil engineering works and it was expected that production would start somewhere around that time, if not a little earlier. The tenders for the Wheel Unit was finalised in January 1981. The Civil engineering was targeted for October 1982. They were actually completed in May 1984 and in between while the total completion of the factory was in progress, the first wheel was cast in December, 1983".

2.10. The Committee note that when approval of Parliament was taken in 1973-74, the total estimated cost of the project was Rs. 21 crores. This estimated cost was raised to Rs. 38.60 crores by June 1975, an increase by 84% within a short span. Based on the revised estimation, the work was allowed to be carried through and in October 1980, the cost was further revised by over times over the original estimated cost of Rs. 21 crores. The Committee are surprised to be informed that the revision of estimate made in June 1975 was also an abstract estimate.

2.11. The Committee are not convinced by the various justifications given for frequent revision of cost estimate. The Committee disapprove that gross under estimation of the project cost on the basis of which the sanction was obtained initially and recommend that the executing

Ministries, the Planning Commission and the Finance Ministry must have inbuilt mechanism to verify cost estimates and ensure that the estimates of the projects placed before them are prepared realistically.

2.12. In December 1980 the Committee were informed of a completion schedule of the project by June 1982 for wheel shop and June 1983 for axle shop ; however the budget provision being then under process for 1981-82, envisaged an outlay of Rs. 39.75 crores only leaving over 50% of estimated revised cost to be provided later. In this connection, Audit has pointed out that when the assurance for completion by a scheduled date was given to the Committee by the Railways, it was known quite well to the Railways that the work could not be completed by the dates indicated.

The Railways have stated that certain circumstances were not foreseeable and that the schedule of completion was given "on the basis of self-imposed targets".

The Committee are of the opinion that the reasons given now are no more than after thoughts and that it was within the knowledge of the Railways in December 1980 that the project was not likely to be completed by the dates intimated to the Committee.

2.13. The Committee also note that the estimated cost of project at the time of commissioning was Rs. 146 crores and by 1984-85, expenditure incurred was Rs. 137.85 crores. Further, the expenditure on project is continued to be incurred even thereafter. The Committee are surprised to note that the project taken up on the basis of an estimate of cost amounting to Rs. 21 crores is now likely to cost Rs. 146 crores approximately. The Committee view the exorbitant escalation in cost with great concern and regret that a project of this magnitude should have been taken up on the basis of a totally unrealistic estimate of cost. The run away escalation in cost leads the Committee to the inevitable conclusion that there was a total failure of project planning. In the eontext of severe constraints of resources, it is imperative that project plans are prepared realistically and effective steps are taken to curb the persistent and unpleasant tendency to underestimate the projects on the basis of unrealistic estimates of cost. The Committee would like to be assured that such lapses do not recur in future and would also like to he apprised of the steps taken in this regard. The Committee recommend that a broad analysis of the items that constituted the outlay as envisaged in 1977, as revised in 1981 and 1985 as actually incurred with reasons for substantial variations, if any, may be furnished.

B (ii) Payment of cost escalation to main contractors

2.14 The contract for civil engineering construction of the wheel unit was awarded in January 1981 to National Project Construction Corporation Limited NPCC) for completion by October 1982 whereas it was actually completed in May 1984. The contract for the construction of the axle unit was awarded in June 1981 to National Building Construction Corporation Limited (NBCC) for completion by March 1983 whereas it was completed in June 1984 only. The delays resulted in cost escalation and both the contractors preferred supplementary claims for Rs. 394 lakhs (NPCC) and Rs. 283 lakhs (NBCC); the responsibility for the delays in completion has been owned by the Railway Board and in this connection the Ministry of Railways justified the delay on the following grounds :

> "The structures for the shops involved complicated foundations for machines, ducts for cables, etc. Their deslgn was to be based on loading parameters for different parts of machinery. Cut-outs, pockets, plate inserts were to be left in concrete members at predetermined locations as per mechanical drawings.
>
> Most orders for machinery were placed on indigenous firms who were doing these jobs for the first time. They had to design the equipment first and then calculate loeding parameters, etc. Even for designs, they had to get the information from their foreign collaborators. Though the decisions were expedited by holding co-ordination meetings, there was some unavoidablc delay due to reasons mentioned above. However, considering that the local manufacturers wesc encouraged with obvious advantages, besides being cheaper, the delay involved in the process was inescapable."

2.15 In regard to the escalation cost claimed by NPCC and NBCC. the Ministry of Railways has stated that the claims were settled by payment of Rs. 60 lakhs and Rs. 23.33 lakhs respectively.

2.16. The Committee note that the contracts with NPCC and NBCC were entered into in January 1981 and June 198. with scheduled dates for completion in October 1982 and March 1983 respectively. However, for the year 1981-82 the budget provision made was only Rs 39.75 crores, which could have covered upto not more than 50% of the estimated cost of the project. Further in the year 1982-83, the provision was for an other

Rs. 30 crores which covered another 25% of the project cost. Thus the budget provisions in both these years were not adequate for completion of contracts by the scheduled dates. The main factors like non availability of design in time, delay due to un-usual whether condition, non-availability of cement, steel etc. in time to which delays in execution of the works have been attributed, should have all been foreseen in the context of the previous experience over the years and a realistic time schedule drawn. In the circumstances, the Committee are constrained to note that the un-realistic time schedule for completion of the two works has resulted in an extra expenditure to the extent of Rs 83.33 lakhs by way of payment of cost escalation to the two contractors. In the opinion of the Committee the entire expenditure due to escalation in cost was totally avoidable in these cases.

C. Collaboration Agreement

2.17 A collaboration agreement was entered into with a foreign firm in April 1974 for technical knowhow and setting up of the wheel shop. The agreement was to come into force from the date of its execution and was to expire 7½ years after the first 1000 wheels had been turned out. The first 1000 wheels were produced by 16 July, 1984 and accordingly, the currency of the agreement would end on 15 January 1992. The agreement, *inter alia* provided for :

(1) transfer of technical know-how including designs, drawings, specifications, manuals and other relevant data.

(2) Visits of representatives of the firm to assist Railways in making licensed products for which the firm should "pay the first round trip transportation costs of such visitation and other expenses incidental thereto until 480 in-plant hours of visitation have occurred." Thereafter, the Plant was responsible for meeting the expenses of Visits of the representatives of the firm.

(3) Payment of royalty fees on production of licensed products at the rate of 5 per cent of net sale price of all licensed products excluding the first one thousand numbers.

2.18 The Audit has observed that design details in respect of all the five types of wheels planned for manufacture at the plant had not been furnished by the firm and that the firm's representatives in a meeting held in March 1985 had contended that design calculations were not covered in the agreement and that they could be made available at a reasonable cost.

2.19 Clarifying the position, the Ministry of Railways (Railway Board) has stated that the Collaboration Agreement covered supply of desing details and drawings of cast steel wheels to be manufactured from time to time at WAP and that the collaborators have made available dimensioned drawings along with the specifications which are adequate for the purpose of production. According to the Ministry, design calculations have not been obtained from the collaborators. The Member, Mechanical, Railway Board however, contended during evidence that there had been no breach of agreement on the part of the collaborator.

2.20 As regards the provisions in the Agreement for technological upgradation and transfer of know how to the WAP by the Collaborator the Ministry of Railways. (Railway Board) in a note to the Committee has stated that in terms of the agreement, as perprovision, the collaborator is required to make available to the Government any development or improvement relating to licenced products, bottom pressure casting equipment, furnishing such drawings and disclose details that will enable WAP to adopt in WAP's Plant such improvement and that during the currency of the Agreement the above provision in the agreement has been satisfactorily fulfilled by the collaborators.

2.21 The Committee pointed out there was no inbuilt provision in the Collaboration Agreement to monitor the technological improvement made from time to time by the Collaborators and enquired how the Railways ensured that every improvement achieved by the Collaborator was being passed on to WAP. Explaining the position the Ministry of Railways (Railway Board) has stated :

> "Subsequent to the signing of the collaboration Agreement in 1974, a team of WAP Engineers and staff were with the collaboator from August 1978 to June 1979 collecting the details regarding the plant and equipment including the improvements incorporated by Griffin in their plant Commissioned subsequent to the signing of the agreement Further, during the years 1979-1983, teams of Engineers and supervisors visited the collaborators different plants to obtain details regarding the process parameters as well as equipment details. M/s. Griffin in 1975 supplied to WAP their standard practice manual pertaining to the technology of wheel manufacture by the Griffin process. Subsequently when they updated it in 1983 incorporating various process changes/ improvements, they sent the revised Standard Practice Manual to WAP.

Further whenever Amsted up dates their process manual, the updated data is also supplied to WAP. Close inter-action with the Engineers from Amsted is maintained during their visit to WAP. Two Engineers have visited WAP from 9 6-85 to 21-7-85. Again two more Engineers have visited WAP from 25-10-87 to 6-11-87. During the discussions with those Engineers it was possible for WAP to ascertain from them the latest improvements effected in the process in Amsted also and get guidance in regard to any difficulties encountered by us during the day-to-day operations.

If the above contractual obligation is not satisfactorily fulfilled by Amsted there is a provision in the contract to terminate the Agreement after giving notice. We have reason to believe that this provision has acted as a deterrent to Amsted as they have been regularly sharing their improvements with us."

2.22. The Committee note that arrangements have been made to ensure regular transfer of technological uhgradation to the WAP and hope that a constant watch will be kept to ensure that all advances in technology that take place upto the date of expiry of agreement in 1992 are duly passed on. The Committee, however, do not accept the stand of the Ministry that the agreement for transfer of technology and designr does not include design calculations also because, in the opinion of the Committee, these are covered by the words, "and other relevant data" mentioned in the agreement after the words, "transfer of technical know-how including designs, drawings, specifications, manuals". The Committee desire that the matter may be examined from the legal angle in consultation with the Law Ministry and ahpropriate action taken to secure the design calculations from the collaborators.

D. *Payment of Royalty to Collaborators*

2.23 As per terms of the Collaboration Agreement, royalty is payable at 5 per cent of the net selling price on wheels produced excluding the first one thousand number. The agreement defines the net sale price as "all-in-cost" of the wheels determined in Government's plant, in terms of Indian Railway Mechanical Code. The term 'all-in-cost' as defined in the Mechanical Code includes proforma charges on account of pensionary charges, supervision etc.

2.24 The question of payment of royalty to the collaborators after the completion of the first one thousand wheels had been under correspondence beetween the WAP Management and the Railway Board, as the costing system had not been finalised. Meanwhile the WAP has paid Rs. 75,86,000 (upto March 1986) representing 85 per cent of the royalty payable to the collaborators on the manufacture of 21,800 wheels, after estimating the cost of each wheel at Rs. 7700/-on the basis of JPC prices. Audit has however pointed out that WAP had worked out in July 1985 that the cost of wheel would be Rs. 5700 and if price of scrap was taken at Rs. 1,500 per tonne (landed price of imported scrap) the cost would be Rs. 5150. In the circumstances, the Audit has expressed doubt about the reasonableness of taking Rs. 7700 as the price of wheel.

2.25 The Audit has further pointed out that the inclusion of 'all-in-cost' in the net sale price for the purpose of payment of royalty was, *prima facie*, disadvantageous to the Railways as they become liable to pay royalty on escalations also, depending upon revision of domestic steel prices though the cost of imported wheel may be cheaper. In this connection the Audit has drawn attention to the fact that in other collaboration agreements entered into by the Railways Board in February 1962 and June 1968 for manufacture of electric locomotives and diesel shunters, the royalty/engineering fee was payable for a certain period or till a certain level of production was achieved, whichever event happened earlier, whereas in the present collaboration agreement for wheels no such stipulation had been made.

2.26 Asked why an exception was made in the Collaboration Agreement, the Ministry of Railways (Railway Board) has stated that in deciding upon the present agreement, Railway Board was guided by the necessity of ensuring the collaborator's continuing interest and that before drawing up the agreement, negotiations were held and the issue of fixing a ceiling of royalty was also considered by a Committee which recommended that no provision need be made for a ceiling on the "all-in-cost" on which royalty was payable.

2.27 In this context, the Committee drew the attention of the Ministry to the note of Financial Commissoner (Railways) dated 14th September, 1984 in which he had objected to this particular way in which the royalty had been agreed upon. According to the Finan-

cial Commissioner, the agreement was heavily weighted in favour of the Collaborators and advised to get this clause altered even at that stage. Enquired as to what steps have been taken to get the clause modified following the above mentioned observation of the Financial Commissioner (Railways), the General Manager, WAP stated in evidence that :

> "The matter was gone into by the Directors Committee in the Railways Board Office. Their recommendations are under consideration of the Railway Board. Presently, Railways are paying royalty on *ad hoc* basis on the basis of 85 per cent of JPC Price. which is Rs. 7700/-per wheel."

2.28 The member, Mechanical, Railway Board informed the Committee that before taking the final decision, the matter would have to be referred to the consultants since it would call for the alteration of the agreement.

2.29 The Committee enquired whether the costing system had been finalised in WAP to arrive at realistic price of wheelset which formed the basis of payment of royalty to the Collaborator. The Committee were informed that WAP costing system was under finalsation. The Committee were also informed that the question of incorporating therein the concepts of supplementary overheads, relevant provisions in the Indian Railways Mechanical Code dealing with costing as a component or as a finished product, difference between 'all-in-cost' and 'transfer price' etc. were under examination.

2.30. The Committee are surprised to note that a decade after the agreement was entered into, the Financial Commissioner of the Railways has observed that the contract had been loaded heavily in favour of the collaborator in respect of the payment of royalty. The Committee would like to know whether the financial aspect was not examined in consultation with the Financial Commissioner at the time the contract was entered into.

2.31 The Committee are also surprised to note that even 4 years after commencement of production the costing system in the WAP is still under finalisation. The Committee can hardly over emphasis the need for expeditious finalisation of the costing system which will be of great help to the Mangement in the control of costs. The Committee would like to know the progress made in finalisation and implementation of the costing system.

2.32 The Committee are also surprised to note that as against the cost of wheel worked out by WAP in July 1985 at Rs. 5,700 the Ministry has chosen to pay royalty at the rate of Rs. 7,700 being the price fixed by JPC. Since the contract provides for working out the royalty at 5% of the net selling price, it was imperative on the part of the Railways to have evolved a mechanism in consultation with the Financial Commissioner to work out the net selling price before agreement on payment of the royalty. The Committee find no justification for failure in determining the net selling price for payment of royalty in accordance with conditions of contract and recommend that steps should be taken to ascertain the same by a time bound programme of three months so that due adjustments in royalty can be made without delay keeping in view the financial interests of the Government.

CHAPTER III

PERFORMANCE OF THE WHEEL AND AXLE PLANT

A. Production Schedule

3.1 As already observed, the establishment of the Yelahanka Plant was justified, on the basis of estimated requirements of wheels at 1,96,220 and axles at 77,162 at the end of 1983-84. However, the actual production of wheels and axles in all the three manufacturing units in India and the quantity imported since 1982-83 as already given in para 1.31 were much less. These figures are reproduced below for ready reference.

	Wheels		Indigenous Production				
	Estimated Need	DSP	TISCO	WAP	Total	Qty. imported	Grand total of wheels procured
1982-83	1,18,032	21737	8	—	21,745	70,791	92,536
1983-84	1,06,329	19466	—	—	19,466	1,15,704	1,35,170
1984-85	86,603	11057	—	2374	13,431	68,621	82,052
1985-86	75,288	23052	—	21032	44,084	28,780	72,864
1986-87	1,46,870	25400	673	47556	78,629	46,649	1,20,278

	Axles		Indigenous Production				
	Estimated Need	DSP	TISCO	WAP	Total	Qty. imported	Grand total of wheels procured
1982-83	56,316	9842	4	—	9846	27812	37658
1983-84	46,637	9198	3684	—	12882	28784	41666
1984-85	31,131	5679	9343	2988	18010	15617	33627
1985-86	35,109	7896	11461	16665	36022	3056	39078
1986-87	70,528	8528	8982	28279	45789	23000	68789

3.2. Consequent on shortfall in indigenous production, Railways resorted to substantial imports of wheels, axles and wheelsets during 1982-83 to 1986-87. But the total quantity procured by the Railways in each of these years was in fact much less than the estimated need.

3.3. In regard to the value of imports ordered during the same period, the Ministry gave the following information :

(Value CIF in lakhs of Rs.)

Year	Wheelsets		Wheels		Axles		Total
	No.	Value	No.	Value	No.	Value	Value
1982-83	23788	2222.31	23215	687 09	4024	140.27	3049.67
1983-84	23521	1921.24	68662	2300.60	5263	208.44	4430.28
1984-85	14096	1112.42	40 629	1345.51	1521	96.57	2563.50
1985-86	1021	90.03	26738	983.00	2035	164.00	1237.00
1986-87	23000	3525.00	649	56.57	—	—	3581.57

(Note : Figures in this table indicate quantities ordered and hence do not tally with the figures in previous table)

3.4. In respect of the new plant established at Yelahanka, the project report contemplated that production would commence in the fourth year from the start of construction with 15 percent of the rated capacity and would gradually increase to 100% viz. 70,000 wheels in the fourth year of commencement of production. However the production commenced late by two years (in 1984-85 only as against target of 1982-83) and according to Audit, the actual production was well below the targetted quantity. The Ministry has stated in this regard that as per appraisals done by World Bank, the plant has exceeded the targets fixed and that the plant would be achieving its full potential as envisaged in the fourth year after commencement of production.

3.5. Taking note of the fact that the actual annual requirement of the wheels and axles could be met by indigenous production by better utilisation of the installed production capacity, the Committee required the Ministry to justify the need for import of 23,000 wheelsets during 1986-87. The Ministry has stated in this regard as under.

"Railways had to go in for import of 23,000 Nos of 22.9 tonnes R.B. wheelsets to meet the sudden increase in the wagon production targets for the years 1985-86 and 1986-87. For the year 1985-86, the wagon production target was raised by Planning Commission from 5,000 four-wheelers to 12,000 four-wheelers during the middle of the year (November '85) which resulted in stabling of wagons at the end of year due to paucity of wheelsets. Similarly, for the year 1986-87, the wagon production target was suddenly revised upward from 15,000 four-wheelers to 20,000 four-wheelers in January '86 requiring larger numbers of wheelsets. To meet the enhanced requirement of wheelsets for wagon production during the period 1986-87, to destabilise the already stabled wagons due to non-availability of wheelsets and due to inadequate availability of indigenous capacity for production, Railways had to go in for import of these wheelsets".

3.6. Asked as to what measures WAP proposed to take to achieve the objective of production of wheels as per the Project Report, the Ministry of Railways (Railway Board) stated in a note furnished after evidence that as per the Project Report, WAP is to make 70,000 wheels to a product mix of 5 types of wheels of which 24,000 Nos are to meet the needs of M.G. wheels. WAP is at present making only BOX 'N' wheels of 1000 mm dia, and the melting capacity provided in the factory has been assessed as 56,700 equivalent Box 'N' wheels. In case 70,000 Box 'N' wheels were to be manufactured, to that extent, apart from providing an additional furnace, the Ministry stated that balancing equipment in critical areas would be necessary for which an exercise has already been initiated and expected to be finalised in the near future, including provision of a third furnace.

3.7. The General Manager, WAP submitted before the Committee during evidence.

"During the last 3 years, we had been struggling to come up to the rated capacity. We can increase the capacity. There is a provision for providing one more furnace and to that extent, we can increase the capacity by about 12000 wheels. But they had been struggling so far to achieve the rated capacity. Secondly, they had to control the manufacturing process itself so that the rejections are brought to minimum possible. It is

the time now that we have to start working hard for providing the third furnace.

3.8 Notwithstanding the reported achievement of targets by WAP the actual production of the wheel and axle plant of DSP and WAP Yelahanka continues to be considerably lower than their rated capacities. The Committee consider it highly unfortunate that despite considerable underutilisation of the available capacity in the country the Railways continue to import substantial quantity of wheels, axles and wheelsets. Having regard to the demand and supply situation, the Committee are convinced that unless efforts are made to improve the performance by DSP, the drain on foreign exchange can not be halted. The Committee hope that Ministries of Railways and Steel will function in close coordination to ensure that the import of wheels, axles and wheelsets is totally stopped under a time bound programme.

3.9. The Committee further note that detailed proposals are being prepared by the WAP for organising necessary inputs including installation of the third furnace and other balancing equipment, etc. for expanding the capacity of WAP to 85,000 wheels per year as provided in the Collaboration Agreement. The Committee urge that Government should take urgent measures to make provision for third furnace and balancing equpment in order to improve production to the maximum extent possible in order to save preciaus foreign exchange.

B. *Cost of Production and Financial Return*

3.10. The WAP adopted the cast steel technology based on "Griffin process" for the manufacture of wheels. Under this process, a number of operations involved in the forging/rolling process were dispensed with. The yield percentage on the basis of finished wheel weight to molten metal was also much higher for the cost wheel technology than for the forged wheel.

3.11. According to the Project Report, the cast wheel plant would be cheaper from the point of view of initial investment as well as cost of production. The Project Report indicated that the investment of Rs. 38.6 crores would yield a financial return of 40.3 per cent adopting landed costs and 27.8 per cent if CIF value only was taken into account. In the context of the upward revision of the cost of the Project to Rs. 129 crores in December 1980 the Ministry anticipated a return of

17 per cent on the investment and also stated at that time that the return could be more than 17 per cent because thereof return had been calculated with reference to the current prices and not price level to obtain after June 1982. However, an assessment made by WAP in March 1986 show that the economic return calculated at JPC prices on the investment of Rs. 146 crores was only 5.2 per cent at full production level and 2.5 per cent at 70 per cent production level. The return would be still less if C and F costs are taken into account as the imported wheelsets are cheaper.

3.12. Explaining the reasons why the wheelset produced at Yelahanka plant was costlier than the imported wheelsets, the Ministry of Railways (Railway Board) have admitted that as compared to the Project Report, the cost of manufacture of wheelsets in WAP has gone up much more steeply than the corresponding prices of imported wheelsets and that this was mainly due to considerable escalation in the cost of inputs which has taken place in India over what was estimated in the Project Report.

3.13. Explaining the position, the Ministry of Railways (Railway Board) have submitted that while full details are not available regarding the cost component of imported wheelset, in respect of two items viz. blooms and scrap which are the main raw-materials for the production of wheelset, their prices in international market have not risen so steeply as in Indian markets per details below.

Rate Rs. per MT

Item	As envisaged in Project Report on the basis of 1975-76 prices	Present day cost on 1987-88	Prices prevailing abroad	
			During 1975-76	Current price 1987-88
1	2	3	4	5
Melting Scrap	400/-	2750/-	930/-	1484/-
Blooms	1400/-	10600/-	2200/-	5678/-

3.14. The table above would indicate that the escalation in prices of indigenous melting scrap was of the order of 588% as compared to only 60% in the international market. Similarly, in the case of blooms also, indigenous prices have risen by 658% as compared to 158% in the international markets.

3.15. Further the landed cost of imported wheelsets has risen by 141% over the estimate in Project Report while the cost of manufacture in WAP has risen by 788%.

3.16. Enquired as to why WAP manufactured wheelset was costlier than the imported one belying the initial claims, the Ministry has observed, that "it is well known that commercial prices can never be based strictly on cost considerations." The Member Mechanical, Railway Board reiterated during evidence that whereas the cost of inputs in India have gone up by about nine times from 1975-76 to date, the cost of relevant inputs outside for imported materials have gone up roughly by a little more than three times and this was true of large varieties of inputs like material, manpower, electricity, diesel etc.

3.17. Supporting his argument the Financial Commissioner, Railway Board, added that the main item of input was steel whose cost in India was nearly three times higher than the world price. According to the Financial Commissioner, Railway Board, WAP has to pay much higher rate of electricity and the Railways have no control on such costs.

3.18 The Committee note that when the project was cleared in 1974 for execution, it was estimated that the project would yield a return of 40.3% based on landed cost When the cost of project was revised in December 1980 to Rs. 129 crores, the Ministry anticipated a return of 17% on the investment and observed that the return would be even more as the return had been calculated with reference to the then price level only. However it is now stated that the return on investment would be only 5.2% based on JPC prices and still less if prices of imported wheelsets are taken into account (after adding C and F costs) Asked to justify the low achievement on financial angle, the ministry has argued that commercial prices can never be based on cost considerations. The Committee do not approve of the shift in stand on principles to be adopted for evaluation of targets and performances and recommend the need for a consistent policy on basic issues like return on investments forevaluation of performances.

3.19 The Committee recommend that a comprehensive study of the factors that go to make up the cost of production should be undertaken to ascertain how costs have escalated and rate of return squeezed, so that the areas for economy and control can be located and measures taken to reduce the cost of production.

Power Supply

3.20. According to Audit, the location of the Plant at Bangalore was based, among other factors, on assurance of uninterrupted power supply as the plant is highly power intensive. As already observed, the assurance was not taken from the State Government but only from the Secretary, Mysore State Electricity Board. However, the plant was planned with acute power crisis affecting the number of heats that could be obtained and causing problem of rejections and inability to maintain substained production. The Committee have been informed that at present the quantum of power supply to the WAP is satisfactory.

3.21. It was pointed out by Audit that tax on electricity amounting Rs. 77.33 lakhs by end of March, 1986 was paid by WAP Administration to the State Electricity Board, though sales tax is not payable by Central Government as per Article 287 of the Constitution of India. The Committee have been informed that Karnataka Electricity Board has accepted in principle that electricity tax should not be levied, that the Railways have disallowed payments to Karnataka Electricity Board on account of tax from May 1986 onwards and that the case for refund of tax paid earlier was being pursued with Karnataka Government.

3.22. On the position relating to power supply, the WAP Administration apprised the Committee on the exact position during the visit of the Committee to the site on 10 October, 1987 as under :—

"Power Supply to WAP is subject to various cuts imposed by K.E.B. from time to time. Till recently the cut was 70%. However, K.E B. has enhanced our quota to 2 lakh units per day subject to availability of power from Ramagundam. Our requirement of power is 63 lakhs units per month on an average. However, in order to find a permanent solution to this problem, in view of the power situation in Karnataka, the matter has been taken up at the highest level with the Hon'ble Minister for Energy and Chief Minister of Karnataka. This was dissussed by the Minister for Railways and Minister of State for Railways with the Karnataka Chief Minister also during their visits to WAP in May 1986."

3.23 Noting that the WAP Administration was paying substantial amount by way of penalty for consumption of electricity in excess of prescribed ceiling, the Committee enquired the reasons therefor. The representative of the Ministry clarified the position in this regard as under :—

"When the Ministry of Energy have granted us two lakh units, they have no reason to impose any valid cut. Prior to June 1987, Kerala used to supply power at the instance of Ministry of Power. When Kerala would not be able to supply or when we would not be able to get power from NTPC, Ramagundam also, the percentage cut imposed by the notification of the Karnataka Board will apply to us. Otherwise it should not apply to us In the situation when it has to be applied in our case also, there are only two alternatives. First is to reduce the demand, which is not possible unless we close down the furnace. Or to keep up production, we have to pay the penalty."

3.24 The Committee regret to note that despite assurance given by the State Electricity Board for supply of adequate power before the project was decided to be set up in Karnataka, the promise has not been kept and excess over the cuts prescribed are subjected to heavy penalties. Further irregular power supply is also causing problems for maintaining qualitative production and as a result rejections do take place. The Committee recommend that the overall effect and consequential loss resulting from inadequate and irregular supply of power should be discussed at the highest level with the State Government and a workable solution found.

3.25 The Committee are surprised to note that though Central Government is not liable to pay sales tax, the WAP Administration continued to pay sales tex upto March 1986 and the total payment on this account up to March 1986 amounted to Rs 77.33 lakhs. The Committee recommed that the question of refund of the amount paid wrongly should be pursued vigorously with the State Government and the Committee apprised of further developments in this regard.

D. *Quality Control*

3.26. According to Para 9.4.6 of the Audit Report the WAP has been experiencing problem of large scale rejections since regular production commenced in September 1984. During the period September 1984 to August 1985 the number of wheel cast was 22,148 out of which only 12,967 casts were passed by the RDSO.

3.27. On this basis, the rejection rate worked out to 58.5 per cent. The main causes of rejection were :

(a) metal refractory inclusions (3 to 18 per cent) ;

(b) surface cracks (1.3 to 10.8 per cent) ; and

(c) mould inclusions (1.4 to 8.2 per cent) etc.

At the instance of the World Bank, two experts of the U.S. firm were invited to investigate the causes of rejections. According to them, the problem of rejection was aggravated due to (i) intermittant operation of the plant because of single furnace operation (ii) high aluminium content of ferro silicon (iii) sub-angular sand (iv) shifting from fursed silica to crystalline silica and back (because of non-availability of silica flour) etc.

3.28. Asked as to the causes for rejections in WAP and how these have been overcome, the Ministry of Railways (Railway Board) stated that since the inauguration of the Plant in September 1984 in the initial stages of manufacture of wheels, the rejection rate was high According to the Ministry this was mainly due to the initial teething problems that are inevitable in a new plant, lack of experience which could be overcome only in course of time and difficulty in identifying, upgrading and developing suitable sources of indigenous materials like refractories, sand, ferro alloys etc. to suit the process requirements.

3.29 According to the Ministry, technology and process adopted for manufacture of cast steel was highly complicated and sophisticated and the artisan staff and majority of the supervisors had no previous experience of the metallurgical process and the technology involved in manufacture of wheels by this process. The Ministry is reported to have identified the main causes of rejection as metal refractory inclusion, surface cracks, mould inclusions etc. As a result of measures taken by trials with different types of refractories for ladle bricks, it is reported that WAP has been able to reduce the rejections attributable to refractory inclusion.

3.30 Further, as a result of studies carried out with different types of sand, the type of sand, that is most suited is stated to have been identified so that the problems being faced with regard to sand at present can be minimised.

3.31 As a result of the steps taken by WAP and with the experience gained by its staff, the rejection percentage is reported to have been brought down to a level of around 12% which is comparable to the rejection percentage achieved in the collaborators' plant in USA and also below the targeted percentage of rejections of 15% envisaged in the IDA report.

3.32 To bring down the level of rejections, it is also reported that cause-wise analysis is regularly conducted by WAP and continuous monitoring of the process parameters is undertaken to ensure that the rejection percentages are minimised.

3.33 The Committee note that due to constant monitoring of the process and bringing about improvement in the quality of inputs in their productivity efforts, it has been possible for the Railways to bring down the rejections substantially which was 58.5% at one time to 12%. The Railways have also pointed out that the rejections have been brought down to low level as compared to the level of 15% envisaged in the Appraisal Report of the World Bank. This low rejection rate is also stated to be comparable to that achieved in the collaborator's plant in USA. The Committee, however, feel that present rejection rate of 12 per cent is still quite sizeable and a cause of concern. Since the total cost of wheel-Sets includes the costs of rejection also and thus with high percentage of rejection, the rate of wheelsets is high, it is imperative that further efforts be made to bring down the rejection rate to the minimum possible level. The Committee recommend that the WAP should continue to make sustained efforts to remove the constraints or minimise their effect to ensure that there is less wastage and the quality of item produced is also of the required standard.

NEW DELHI,
December 14, 1988
Agrahayana 23, 1910 (Saka)

AMAL DATTA,
Chairman,
Public Accounts Committee.

APPENDIX-I

(Vide Paragraph 1.1 of the Report)

(Paragraph 9 of the Report of the C & Ag of India for the year 1985-86 – Union Government (Railways)

9. Wheel and Axle Plant, Yelahanka

9.1 Introduction

The Railway's requirement of wheels and axles are generally met by the Durgapur Steel Plant (DSP) and the Tata Iron and Steel Company (TISCO). Indigenous production being inadequate to meet the requirement, Railways had been importing 40 to 50 per cent of wheels, axles and tyres for over 2 decades. In 1972, the Railways proposed to set up a Wheel and Axle Plant to supplement the capacity of the above two indigenous sources of supply. A collaboration agreement was entered into with a US firm in April 1974 for technical know how and setting up the Wheel shop. The work on the project was commenced on an urgency certificate in August 1974 and an abstract estimate for Rs. 38.6 crores was prepared in June 1975 after consultation with the US firm for wheels and a Czech firm for axles. The project was under consideration for several years as the Planning Commission and the Ministries of Finance and Steel had reservations on the need for setting up a separate Wheel and Axle Plant under the Ministry of Railways. They were considering whether the capacity of Durgapur Steel Plant would not be adequate for meeting the Railways requirements. The project was finally cleared by the Planning Commission in 1978 and the financing arrangements for the Project from International Development Authority (IDA) credit were finalised in November 1978. A revised estimate of the Project for Rs. 129.65 crores was sanctioned by the Railway Board in February 1981. According to the Project Report production was to start from December 1978. The target date was subsequently revised to June 1982. The various shops in the Plant were actually commissioned in stages between December 1983 and March 1984 and regular production started from September 1984. The estimate was again revised to Rs. 146 crores in July 1985.

9.2 Planning

9.2.1 The scheme envisaged the introduction of modern technological processing for the manufacture of wheels and axles by "pressure pouring (Griffin process)" and "precision long forging" process respectively duly avoiding a multitude of processes involved in forged wheels. The project was justified on the grounds that apart from the heavy drain of foreign exchange, the cost of imported wheelset was roughly three and half times the cost of indigenous wheelset and prices were rising in world markets. Besides, financing of wheel imports and delays in supplies from abroad had also adversely affected wagon production and rolling stock maintenance programmes.

9.2.2 In January 1977, the IDA mission examined in depth the Railway's proposal for setting up the wheel plant and agreed to finance the project, except civil engineering works, to the tune of $ 38 million on soft loan basis.

9.2.3 The need for setting up the Railway's wheel and axle plant was further examined by the Ministry of Finance and a sub-committee comprising the Finance Minister, the Minister of Steel and Mines and the Deputy Chairman, Planning Commission. In May 1978, the sub-committee endorsed the proposal to set up the plant by the Railways. Even before that the Ministry of Railways (Railway Board) had sanctioned in November 1977, an abstract estimate for the project for Rs. 38.6 crores.

9.2.4 The Public Accounts Committee (1980/81) had observed in its 45th Report (Seventh Lok Sabha) that :

> "the advance planning done in this case has to be considered in the light of the fact that the final clearance for the project came much later and the entire expenditure incurred could have been rendered infructuous in case the Planning Commission or the Finance Ministry had not been convinced of the inevitability of the project. The Committee cannot but express their displeasure at the haphazard nature of planning done in this case".

9.2.5 Commenting on the revision of the cost of Project from Rs. 38.6 crores to Rs. 129.65 crores the Public Accounts Committee (1980-81) observed :

"It appears that one of the reasons for higher estimates in later years was that the estimates were not prepared realistically initially."

9.2.6 According to the Ministry of Railways (Railway Board) the increase in cost was mainly due to (i) steep escalation in costs Rs 60.10 crores, (ii) increase in scope of work Rs. 26.64 crores and (iii) increase in general charges Rs. 3.75 crores.

9.2.7 The Railway Board's contention that a major part of increase viz. Rs. 60.10 crores was on account of escalation is not borne out by facts as mentioned below :

(a) Under civil engineering works an increase of Rs 14-9 crores out of Rs. 16.5 crores was due to increase in floor area of administrative buildings, shops, and inclusion of additional buildings for control room, diesel generating sheds, more number of quarters, etc. Under other items, such as Hospital, Training School, Furniture, etc , there was gross under-estimation and the provision was increased from Rs. 0.78 crore to Rs. 3.89 crores.

(b) In respect of plant and equipment there was an increase of Rs. 62.9 crores. The original estimate was revised to provide for variation in number of machines to be procured, type of equipment, flexibility to suit future production requirments, improved designs, etc.

(c) Similarly, under 'electrical works' an increase of Rs. 8.87 crores became necessary as "at the stage of framing abstract estimate, clear idea of final layout of the plant and also the number and scope of equipment to be installed was not available."

9.2.8 The Railway Board informed the Public Accounts Committee (1980-81), in December 1980, that the Wheel Shop was expected to commence production by June 1982 and the Axle Shop by June 1983. However, even in the budget for 1981-82 which was then under finalisation a provision of Rs. 39.75 crores only was made for that year. The balance of estimated cost carried over to 1982-83 and beyond was Rs. 65.77 crores, i.e., about 50 per cent of the estimated cost. Consequently, there was no likelihood of production commencing from June 1982. Adequate budgetary provision for 1982-83 was also not made

so as to expedite the completion of the project. The allotments made during each of the years 1981-82 to 1985-86 were also not fully utilised as shown below :

(Rupees in crores)

Year	Budget provision	Revised estimate	Actual expenditure
1981-82	39.75	39.75	35.94
1982-83	60.00	54.40	51.18
1983-84	21.40	19.40	16.78
1984-85	11.84	11-84	9.61
1985-86	5.50	5.50	3.67

The WAP commenced production in September 1984.

9.2.9 Incidentally, it is to be mentioned that even the contracts for civil engineering works for the Wheel and the Axle Shops were awarded in January 1981 and June 1981 respectively with period of completion of 21 months.

9.2.10 Meanwhile, the Railways imported wheelsets in large numbers as shown below :

Year	Wheelsets			
			22.9 tonnes	20.3 tonnes
	Nos.	Value (Rs. in crores)	Nos.	Value (Rs. in crores)
1982-83	11,700	19.89	10,400	17.68
1983-84	10,312	17.36	1,394	2.37
1984-85	13,276	22.57	..	..

9.2.11 Though the Planning Commission had given an indication that the output of Durgapur Steel Plant was showing a rising trend, during 1983-84 and 1984-85 its production was much lower than in earlier years. The rated capacity of Durgapur Steel Plant was 66,000 tonnes of wheels and 27,000 tonnes of axles constituting 75,000 wheelsets

(60,000 BG and 15,000 MG sets) per year. The actual production during the year 1979-80 to 1985-86 was as under :

Year	wheelsets 20.3	16.3t	12t	Total assembled wheelsets for Rlys.	Total assembled wheelsets including supplies to other units	Loose wheels	Loose axles
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1979-80 .	9128	989	3030	13147	13446	6760	1146
1980 81 .	9220	89	3173	12482	12482	6768	1439
1981 82 .	8122	289	1622	10033	10099	9631	2973
1982-83 .	6922	168	941	8031	8081	6941	2320
1983-84 .	7143	...	287	7340	7438	7438	2698
1984 85 .	2850	18	83	2951	2969	6091	2138
1985-86 .	3235	...	251	3486	3575	19588	5551

9.2.12 Thus there was lack of coordination between the Railways and the Durgapur Steel Plant with the result that Durgapur Steel Plant's capacity was utilised to the extent of 14.2 per cent and 30.9 per cent only during 1984-85 and 1985-86 respectively while at the same time the Railway imported wheelsets which could have been made at Durgapur.

9.2.13 It is significant to mention that in 1978, the Government had cleared the Wheel and Axle Plant project with the stipulation that the Railways would fully consume the product-mix of the Wheel and Axle Unit of DSP, which at the production level of 50,000 sets was expected to be 35,000 roller bearing 20.3/16.3 tonne sets, 5,000 plain bearing, 16.3 tonne sets and 10,000 plain bearing 10/12 tonne sets.

9.2.14 As there has been substantial change in the nature of Railways requirement of wheelsets, it is not clear how the capacity of DSP would be utilised.

9.3 Execution

9.3.1 The contracts for civil engineering construction of the wheel unit were awarded in January 1981 to M/s. National Projects Construction Corporation (NPCC and axle unit in June 1981 to M/s National Buildings Construction Corporation (NBCC). The sheduled date for completion of the wheel unit was October 1982 ; it was actually completed in May 1984. The axle unit scheduled to be completed by March 1983 was completed in June 1984 only. These delays resulted in cost escalation and claims from contractors for additional payments. They submitted supplementary claims for Rs. 394 lakhs (NPCC) and Rs. 283 lakhs (NBCC) for work done during the extended period (beyond the original sheduled date of completion). The admissibility of claims was examined by a Committee of Senior Officers of the WAP Administration. It was held that "the delay was by and large due to departmental reasons" such as delay in issue of drawings, decisions, etc. and payments amounting to Rs. 63.15 lakhs to NPCC and Rs. 24.54 lakhs to NBCC as compensation was recommended by it in October 1985. An amount of Rs. 78.70 lakhs was paid to the contractors in June 1986.

9.3.2. Construction of overhead tank

During 1979, the Wheel and Axle Plant Administration awarded a contract to firm 'A' for civil engineering works which *inter alia* included construction of two overhead tanks of 4.50 lakh litre capacity each on 20 metre staging and 2 RCC ground reservoirs, one of 28 lakh litre capacity and the other of 2 lakh litre capacity. During negotiations preceding the acceptance of tender, the contractor laid down a condition that for concreting works at higher level they be permitted to make use of the already completed and sufficiently mature concrete members for supporting the centering for all concrete works by cantilever method. The method of construction proposed by the contractor was different from that recommended by the consultants, *viz.* that the work of construction of overhead tank should precede that of underground storage tank and the centering should be supported by props from the ground. The method proposed by the contractor was accepted by the Administration.

The contractor started work on the underground water tank in April 1979 and the work of construction of overhead water tank was

commenced much later. While the work was in progress, the Administration objected in April 1980 to the method adopted by the contractor. The contractor firm defended its action stating that the cantilever portion of the container of the tank would be supported from the main shaft. The matter was once again referred to the consultants who stuck to their original stand. The Administration thereafter directed the contractor to submit details for staging from the ground which was approved in November 1980. The contractor claimed extra payment at the rate of Rs. 1.25 lakhs per overhead tank in view of the additional work involved.

With a view to examining the admissibility of extra rates, the Administration constituted a high level committee in February 1983 consisting of the Financial Advisor & Chief Accounts Officer, the Chief Engineer and the Additional General Manager. The committee noted that the method of construction proposed by the contractor had been referred to the consultants for advice but the suggestions made by the latter had not been advised to the contractor. Instead the Administration took a decision to go in for conventional method of construtions which necessitated execution of extra items of work like propping arrangements for which an avoidable payment of Rs. 1.74 lakhs had to be made.

9.3.3 Avoidable expenditure in the construction of quarters.

(i) An estimate for Rs. 2.36 crores for construction of 589 quarters at the Wheel and Axle Plant was sanctioned by the Railway Board in November 1977. In February 1981, a revised estimate for Rs. 3.67 crores was sanctioned. The revision was necessitated by, besides cost escalation etc., certain alterations in the proportion of different types of quarters (increase in the number of Types I and III quarters and reduction in the number of types II and V quarters) while keeping the overall number to 589.

The member (Engineering), Railway Board during his visit to the Project site in August 1978 directed the WAP to engage the services of suitable architects for residential and service buildings as well as workshop premises.

Accordingly, the WAP Administration decided in October 1980 to go in for consultancy services for architectural lay out and design and invited limited tenders in November 1980. Only four firms submitted their tenders. The tender committee recommended in January

1981 that the architectural-cum-design consultancy services contract be distributed amongst three firms—the total value being Rs. 3.85 lakhs. The actual expenditure incurred worked out to Rs. 3.42 lakhs.

Similarly, for construction of a 30 bed hospital a contract for architectural and engineering consultancy services was entered into in October 1980 and an amount of Rs. 1.21 lakhs was paid to the consultant.

The engagement of consultants for preparing plans and designs was not justified for the following reasons :—

(a) The Railways have been building a large number of residential buildings all over the country for a long time. Standard model types of quarters for being adopted in specified areas have been evolved by the Railway Board in consultation with the RDSO. These models have been obviously designed to ensure functional efficiency and economy in cost and also to obviate the necessity for preparing plans and drawings every time staff quarters are to be built at new locations. Further, the consultants were also expected to follow the orders of the Railway regarding plinth area of the buildings and other specifications.

(b) The aesthetic consideration, *per se*, is a relative concept and in relation to buildings to be used as staff quarters it would not normally be of much significance. While constructing Government staff quarters, the emphasis should be on utility and economy rather than ostentation and extravagance.

(c) Appointment of consultants did not result in any savings of manpower of the department becuase the drawings submitted by the consultants had to be scrutinised by the Administration indetail. Also, the construction work had, by and large, to be supervised by the departmental staff.

(ii) The revised sanctioned estimate included 36 Type V quarters which are intended for officers in the pay range of Rs. 1500-2000. In case of shortage of accommodation, this type of quarters could be allotted to officers of higher scale. These quarters had been built at

the cost of Rs. 1.34 crores and were ready for occupation with effect from July 1984 (32 numbers) and July 1985 (4 numbers). In May 1984, the Railway Board sanctioned 14 posts in the Administrative grades (Rs. 1500-2000, Rs. 2250-2500 and Rs. 2500-2750) and 14 in the senior time scale for the plant operation phase. The total number of officers entitled to Type V quarters according to WAP Administration's own assessment would be 28. With reference to the actual number of posts approved by the Railway Board for post commission stage, the number of officers entitled to Type V worked out to 21 (14 Administrative grade plus 7 senior scale). Thus provision of 36 Type V quarters in the estimate and their construction as against the requirement of only 21 quarters resulted in an avoidable investment of Rs. 57.55 lakhs.

(iii) In accordance with the norms laid down by the Railway Board, the plinth area of Type V quarter should not exceed 191.80 square metres. Contrary to these norms the plinth area of Type V quarters actually constructed worked out to 202.47 square metres. The provision of additional plinth area entailed an expenditure of Rs. 7.52 lakhs which was regularised by obtaining *expost facto* approval of the Railway Board in December 1985.

The WAP Administration stated (July 1985) as under :—

(a) Apart from aesthetic, economical and functional aspects, the predominant factor in favour of the decision to go in for consultancy was that the WAP did not have enough manpower in the Drawing Office to cope with the work.

(b) The tentative projections about the strength of officers in the estimate were scaled down by the Railway Board. This resulted in quarters being excess to requirements. The position would improve with the growth of the activities of WAP. There was no loss of earnings to the Railway since the quarters had been allotted to Officers and recovery was being effected on the assessed rent basis in cases where officers were not entitled to the type of accommodation alloted to them.

It may, however, be pointed out that

(i) the justification for seeking consultancy from private agencies for design of quarters which are standard type on railways is not clear;

(ii) the construction of quarters could have been restricted to present needs, and

(iii) the argument that assessed rent is being collected does not justify the investment on construction of excessive number of higher type of quarters.

9.4 *Production and performance*

9.4.1 The Wheel and Axle Plant was expected to develop a capacity for an annual production of 70,000 loose wheels of which 23,000 would move out in the form of assembled wheelsets The sizes of wheels to be manufactured cover a range from 725 mm to 1090 mm diameter and comprise 5 main type of wheels. With regard to axles, the plant is programmed to manufacture more than 50 types representing a major cross section of different types of axles for all gauges.

The project report also eontemplated that production would commence in the fourth year from the start of construction with 15 percent of the rated capacity and gradually increasing to 100 percent viz., 70,000 wheels in the fourth year of commencement of production. In respect of axle unit, it was expected that the output would be 15 percent of the rated capacity (23,000 axles) in the first year after commissioning and 100 percent in the third year.

However, as already mentioned, the production started in September 1984. The consequence of delay in commissioning have also been mentioned in paragraphs 9.2.10 and 9.2.12 above.

The production targets and actual production were as under :

(Figures in units)

Year	Wheelsets		Axles	
	Target	Actual	Target	Actual (BG & MG)
1984-85	4300	1253	...	1801
1985-86	10732	10027	...	5905
1986-87 (upto December 1986)	20000	16815	...	...

It was stated by the Administration in September 1985 that the targeted production of 23,000 axles would be achievable from 1936-87.

9.4.2 *Power Supply*

Sustained production could not be maintained due to power cuts, low voltage and inadequate supply of energy by Karnataka State Electricity Board The location of Plant at Bangalore was based, among other factors, on assurances of uninterrupted power supply as the plant is highly power intensive. However, even from the initial days of commissioning of the arc furnaces (in September 1983) the plant was plagued with acute power crisis affecting the numbar of heats that could be obtained and causing problems of rejection. Consequently, only one of the two electric arc furnaces is used for production of wheels resulting in underutilisation of capacity.

Supply of power to the plant was based on maximum demand fixed by Karnataka State Electricity Board with reference to consumption prior to commencement of production. Consequently, the maximum demand was not fixed realistically and the Administration had to pay penal charges for consumption in excess of maximum demand. A sum of Rs. 5.51 lakhs was paid by the Administration towards such penalty during the year 1983-84 to 1985-86.

Incidentally, it was noticed that tax on electricity amounting Rs. 77.33 lakhs to end of March 1986, was paid by the Administration to the State Electricity Board, though sales tax is not payable by Central Government as per article 287 of the Constitution of India. The Administration informed Audit in September 1986 that it had decided to disallow the tax element from the payments made to Karnataka State Electricity Board from May 1986 and that the matter regarding payment of tax was pending with the Government of Karnataka.

9.4.3 *Raw Materials*

The raw materials for the manufacture of wheels and axles are steel scrap and steel blooms.

It was anticipated that for production level of 23,000 wheelsets per annum (and loose axles required for maintenance) about 30,000 tonnes of blooms would be required by the Plant. An assurance was given by the Ministry of Steel in August 1983 that Alloy Steel Plant (ASP) Durgapur would be able to meet WAP's current as well as future requirements of blooms. The WAP placed orders on Alloy Steel Plant for 18,800 tonnes of blooms during the period February 1984 to July 1985. Against these

orders the ASP Dnrgapur could supply 10,133 tonnes only upto March 1986. Meanwhile, as the production of wheelsets was affected, an import of 6,000 tonnes of blooms was cleared (October 1985) in consultation with Ministry of Steel. An order for 6,000 tonnes of blooms costing DM 51,00,000 was placed on a firm of West Germany in January 1986.

A further review of the requirements of blooms in January 1986 showed that the WAP might require 42,000 tonnes of blooms per annum and their would be a shortfall of 4,000 tonnes in the first half of 1986-87. Accordingly, another order for 4,000 tonnes of blooms was placed on the same firm in February 1986 bringing the total imports to 10,000 tonnes at a cost of DM 84,20,000.

It is to be pointed out in this connection, that the Railway had informed the Ministry of Steel that the WAP would be requiring about 3 ,000 tonnes of blooms annually. However, these estimates were revised to 42,000 tonnes of blooms per year in January 1986. Though the Ministry of Steel had assured that the Plants requirements would be met in full, the scheduled supplies during 1986-87 were only 23,600 tonnes against even the earlier requirement of 30,000 tonnes.

Because supplies from ASP were inadequate, import of 10,000 tonnes of blooms had to be arranged. Besides, the annual demand was stepped up from 30,000 to 42,000 tonnes. It is not clear, at present, whether the ASP could be able to meet the requirements of 42,000 tonnes of blooms in full.

It has been noticed that even scrap was not available in adequate quanlities in the initial months of production and WAP had to import 1037 tonnes of scrap valued at Rs. 21.04 lakhs involving foreign exchange, in February/July 1985.

9.4.9. *Plant and Equipment*

One of the reasons for the Plant's inability to increase production is stated to be the number of heats that could be obtained from the arc furnaces. For a production level of 39,700 wheels obout 2,200 heats are stated to be required. However, during the period September 1984 to August 1985 the average number of heats obtained was only 80.5 per month. The plant is now (August 1986) stated to be working at a level of 150 heats per month against required level of 200 heats per month.

The firm which had supplied the arc furnaces had indicated that approximately 130 heats would become available between 2 sucessive side relining and 120 heats between 2 relinings of the roof. As against this, WAP has been able to achieve only about 40 heats between successive side relining and 50 heats between relinings of roof. Every time the furnace is relined, it is out of commission for approximately 2½ to 3 days and this factor alone is stated to be badly affecting the availability of furnace. The reasons for the poor performance vis-a-vis the manufacturer's specifications are stated to be the higher melting temperatures, limitations due to quality of indigenous refractories, etc.

The problem of poor availability of furnaces and consequent loss in production *vis-a-vis* rated capacity has not so far (November 1986) been fully investigated.

9.4.5 *Unnecessary procurement of shearing machine*

With a view to bringing down the cost of cutting scrap by expensive oxy-acetylene blow pipe method, an alligator shearing machine costing Rs. 16 84 lakhs. (foreign exchange element Rs. 1083 lakhs) was obtained and commissioned in November 1983. An outturn of cutting scrap of about 250 tonnes per day is the quantity required when the Plant goes into full production. However, the performance of the machine since its commissioning in November 1983 was only around 5 tonnes per day though the Administration had achieved a maximum outturn of 30 tonnes per day in three shifts in test trial conducted under ideal conditions. When the anticipations regarding the outturn of the shearing machine did not materialise the WAP riverted to the original method of oxyacetylene cutting. A contract for a sum of Rs. 6.3 lakh per year was also awarded from 1985-86 onwards for operations connected with oxy-acetylene cutting. The imported machine was under-utilised.

9.4.6 *Quality Control*

The WAP has been experiencing problem of large scale rejections since regular production commenced in September 1984. During the period September 1984 to August 1985 the number of wheels cast was 22,148 out of which only 12,967 casts were passed by the RDSO.

On this basis the rejection rate worked out to 58.5 per cent. The main causes of rejection were :

(a) metal refractory inclusions (3 to 18 per cent);

(b) surface cracks (1.3 to 10.8 per cent); and

(c) mould inclusions (1.4 to 8 2 per cent) etc.

At the instance of the World Bank, two experts of the U.S. firm were invited to investigate the causes of rejections. According to them the problem of rejection was aggravated due to (i) intermittant operation of the plant because of single furnace operation, high aluminium content of ferro silicon, sub-angular sand, shifting from fused silica to cystalline silica and back (because of non-availability of silica flour), etc. Accordingly, the WAP is stated to have initiated action to import ferro-silicon (with 0 1 per cent aluminium) from the firm which was supplying this material to the U.S. firm.

Metal refractory inclusions (causing rejections) were found to be due to poor quality of ladle refractory bricks. The WAP, therefore, decided that a ladle should be used for 8 heats only instead of 16 heats before relining. (The cost of relining is estimated at about Rs. 15 thousand). A proposal to import 20 sets bricks from the U.S. firm for trial purposes has been under the consideration of the Railway Board since March 1986.

The quality of sand used in the process of making moulds and casting is also stated to be affecting the quality of wheels. It has been held that round grain sand was not available in the country. The WAP had sent two samples of sand being used in the Plant for testing by U.S. firm in January 1986. The most suitable quality of sand was stated to be available from Cochin and Mangalore (about 400 km. from Bangalore), and is being obtained from these places.

The percentages of rejections is stated to have come down to 18 in February 1986 out of which rejections due to surface cracks were 3 per cent. A permanent solution to minimise rejections and to establish quality production is yet to be determined. Instead the plant has had to resort to import of various materials required for the process of production (though on a limited scale for trial purposes). In addition, the materials specific to the process of manufacture, viz., graphite moulds, pouring tubes, etc. are necessarily required to be imported (not being indigenously available) at a cost of Rs. 6 crores per annum.

9.4.7 *Procurement of graphite blocks*

(i) In order to build facilities for production of 1090 mm wheels contemplated in the Project Report, the WAP Administration invited global tenders in April 1980, with the approval of the Railway Board, for supply of graphite blocks of 52" size. The single offer received in time from a US firm in December 1980 was for the supply of 200 numbers at a cost of Rs. 85.59 lakhs with the stipulation that 100 blocks would be delivered in September 1981 and the balance in December 1981.

Supply of 63 numbers of graphite block was received in March 1982 and 49 numbers in May 1982. In October 1982 WAP. Administration reviewed the requirements of 52" blocks and found that no Railway needed 1090 mm wheels. An assessment in September 1983 of the requirements of 1090 mm wheels indicated that as against the original plan of 10,000 nos, hardly 200—300 nos would be sufficient for checking the capacity of moulding and cleaning room conveyers. In May 1984 the Railway Board advised that there was little likelihood of demand arising at a future date for 1090 mm wheels and any minor requirements could be met by purchase. Thereafter, the WAP Administratien cancelled the order for the balance quantity of 88 blocks in May 1984 without any financial repercussions on either side.

Of the 112 blocks already procured, 35 were converted into copes and 30 into drags for taking up trial production of 1090 mm wheels ; 4 were converted into 48.5" diameter and another 4 into 43.5" diameter for being used for trial casting of 915 mm wheels. The remaining 39 blocks were proposed to be machined to 48.5" diameter blocks for BOXN 1000 mm wheels. The Board agreed to this proposal in October 1985.

As the WAP was manufacturing 1000 mm wheels only, it was compelled to use after suitable conversion the 52" blocks procured at an additional cost of Rs. 39.18 lakhs and intended for the manufacture of 1090 mm wheels.

(ii) The Administration invited global tenders in October 1984 for the purchase of 160 graphite mould blanks 48.5" required for the manufacture of broad gauge BOX and BOXN type wheels in WAP. Four offers were received. The two acceptable offers were from firm 'A' (through their Indian Agents) and firm 'B'. The rate quoted by firm 'A'

was $3507 FOB (US port) per blank and that quoted by firm 'B' was $3857.81 FOB (US port). Both the firms were on the approved list of suppliers to the consultants. The cheaper offer of firm 'A' differed from the specifications given by WAP (obtained from the consultants) in respect of permeability value, grain size and tolerance in diameter to the following extent :—

	WAP's Specifications	Firm's offer
1. Permeability Value	60% of the blanks in the range of 0.2 to 0.7 AFS units	Typical rating will be 1.00 AFS units or less for 60 per cent blanks
2. Grain size	1.5 mm maximum	1.7 mm maximum
3. Tolerance in diameter	+0.25", −0.0"	+0.5", −0.2"

The consultants had advised the WAP that the permeability range could be relaxed upto 1.2 AFS units or less for 75 percent of graphite blanks. Hence the firm was asked whether it could adhere to this percentage and whether it could supply the blanks with minus zero tolerance in dia. The firm agreed to both the parameters of the specifications as required by the WAP. The grain size as offered by the firm was also acceptable to the consultants.

In spite of the fact that the firm 'A' had agreed to supply to the relaxed specifications and also that such relaxations had been permitted by the consultants, the Administration did not place the order for the full quantity on this firm and distributed the quantity of 160 blanks between firms 'A' and 'B' though the rate quoted by the latter was nearly $351 more than that of the former, on the consideration that firm A's offer contained deviation from the specification and only after more extensive experience would the effect of such relaxations on the life and utility of the item be known.

The placing of orders for only 50 percent of the quantity on firm 'A' lacked justification because :—

(a) such relaxations had earlier been permitted by the consultants and the Administration had accepted them ;

(b) the fact that the Administration had chosen to place an order for 80 blanks, committing themselves to a liability of $2,80,560 (FOB value Rs. 37 lakhs) shows that the Administration had

no misgivings about the performance of blanks with relaxed specifications ;

(c) the performance of firm 'B' could not be held to be satisfactory because out of 112 graphite mould blanks 52" supplied by it against another order for 200 blanks placed in December 1980 only 16 were within the required range of permeability.

The placing of the order for 80 blanks on firm 'B' at higher rate resulted in an extra expenditure of Rs. 8.80 lakhs (in foreign exchange).

9.4.8. Man-power planning

The Railway Board had approved deployment of 61 Groups A and B and 1553 Groups C and D officials for full production level. The deployment of man-power in WAP organisation on various dates from commencement of production was as under :—

Date	Groups A&B	Groups C&D
30-9-1984	75	927
31-3-1985	66	1013
31-3-1986	66	1475
30-6-1986	63	1505

While the manpower in position as on 31 March 1986 had almost reached the level prescribed by the Railway Board for full production, the actual level of production is just 40 percent.

9.5 *Collaboration Agreement*

The collaboration agreement entered into by the Government with the US Firm on 10 April 1974 provides *inter alia* for :—

(1) Transfer of technical know how including designs, drawings, specifications, manuals and other relevant data.

(2) Visits of representatives of the firm to assist Railways in making licensed products for which the firm should "pay the first round trip transportation costs of such visitation and other expenses incident thereto until 480 in-plant hours of visitation have occurred." Thereafter, the Plant was responsible for meeting the expenses of visits of the representatives of the firm.

(3) Payment of royalty fees on production of licensed products at the rate of 5 per cent of net sale price of all licensed products excluding the first one thousand numbers.

The agreement would come into force from the date of its execution and would expire 7½ years after the first one thousand wheels (licensed product) had been turned out. The first one thousand wheels had been produced by 16 July 1984 and accordingly the currency of agreement would end on 15 January 1992.

It is observed that design details of 5 types of wheels originally planned for manufacture at the Wheel and Axle Plant had not been furnished by the firm. The firm's representative in a meeting held ia March 1985 contended that design calculations were not covered in the agreement and that they could be made available at a reasonable cost.

According to the agreement the firm was to provide the services of their representatives for 480 man hours free of cost including the air fare for the visits. Upto March 1985, the WAP had utilised 417½ man hours. The balance available was considered to be meagre 'to train the staff so that both quality and productivity can come up to desired levels'. Accordingly, the services of two representatives of the firm for another 90 man days (720 man hours) were requisitioned by the WAP. This involved payment of $ 13,200 for the stay of the specialists besides air fare amounting to Rs 70,000 and payment of Rs. 1.80 lakhs at Rs. 1 thousand per day for specialist. The air fare paid for the visit of one representative which had to be borne by the firm has not been recovered so far.

9.6 *Payment of royalty*

As mentioned above, royalty is payable at 5 percent of the net selling price on wheels. The agreement further defines the net sale price as "all-in-cost" of licensed products determined in Government's plant, determined in terms of Indian Railway Mechanical Code".

The term 'all-in-cost' as defined in the Mechanical Code includes proforma charges on account of pensionary charges supervision, etc.

The question of payment of royalty to the collaborators after the completion of the first one thousand wheels had been under correspondence with the Railway Board, as the costing system had not been finalised. Meanwhile, the WAP has paid Rs. 75,86,000 (upto

March 1986) representing 85 percent of the royalty payable to the collaborator on the manufacture of 21,800 wheels. For purposes of payment of royalty, the sale price has been worked out on the basis of JPC prices (Rs. 7700 per wheel) though the WAP had worked out in July 1985 that the cost of wheel would be Rs. 5700 and if price of scrap was taken at Rs. 1,500 per tonne (landed price of imported scrap) the cost would be Rs. 5150. It is, therefore, not clear how the price of wheel had been taken as Rs. 7700.

Moreover, the inclusion of 'all-in-cost' in the net sale price for purpose of payment of royalty was *prima facie* disadvantageous to the Railways as they become liable to pay royalty on escalations also, depending upon revision of domestic steel prices though the imported cost of wheel may be cheaper. Even in 1985-86 the cost per imported wheelset including customs duty was Rs. 15 thousand only against the production cost of Rs. 30,400 in WAP. Further the royalty is payable on licensed products turned out during the 7½ years period upto 15 January 1992. It may be relevant to point out in this connection that in other collaboration agreements entered into by the Railway Board in February 1962 and June 1968 for manufacture of electric locomotives and diesel shunters, the royalty/engineering fee was payable for a certain period or till a certain level of production was achieved, whichever event happened earlier. But in the collaboration agreement for wheels no such stipulation had been made.

9.7 *Cost of production and financial return*

The WAP adopted the cast steel technology based on "Griffin process". Under this process, a number of operations involved in the forging/rolling process were dispensed with. The yield percentage on the basis of finished wheel weight to molten metal was also much higher for the cast wheel technology than for the forged wheel.

According to the Project Report the cast wheel plant would be cheaper from the point of view of initial investment as well as cost of production.

As already mentioned in para 9.1 the investment costs had to be revised from Rs. 38 6 crores to Rs. 146 crores. The Project Report indicated that the investment of Rs. 38.6 crores would yield a financial return of 40.3 per cent adopting landed costs and 27 8 percent if CIF value only was taken into account. The Railway Board had informed the Public Accounts Committee (1980-81) in December 1980 that the

return on investment of Rs. 129 crores had been calculated at 17 per cent. However, an assessment made by WAP in March 1986 shows that the economic return calculated at JPC prices on the investment of Rs. 146 crores was only 5.2 per cent at full production level and 2.5 per cent at 70 per cent production level. The return would be still less if C&F costs are taken into account as the imported wheelsets are cheaper.

The price of a wheelset manufactured by the WAP and to be used in a BOXN wagon has been fixed at Rs. 30,400 for the year 1985-86. The cost of an imported wheelset inclusive of customs duty in 1985-86 was Rs. 15 thousand which is less than half of the price of wheelset turned out by the WAP. The plant has not yet finalised its costing system and, therefore, the exact position about costs and economic viability is not known.

9.8 *Summing up*

(a) In 1972, the Ministry of Railways (Railway Board) proposed to set up a Wheel and Axle Plant to supplement the capacity of the Durgapur Steel Plant and the Tata Iron & Steel Company and entered into a collaboration agreement with a US firm in 1974.

The Project was finally cleared by Government in 1978 as the Planning Commission desired (1975) a re-appraisal of the project in the context of the rising trend of output at Durgapur Steel Plant. Even before that the Ministry of Railways (Railway Board) had sanctioned the Project at an estimated cost of Rs. 38.6 crores. Mainly because of under-estimation of costs and changes in the scope of work, the estimate had to be revised to Rs. 129.65 crores in February 1981 ; it was again revised to Rs. 146 crores in July 1985.

(b) Though the Plant was expected to commence production by June 1982, the budget allocations during 1981-82 and 1982-83 were not adequate to expedite the completion of the Project. The delay in completion of the Project necessitated continued import of wheelsets valued at Rs. 79.87 crores upto 1984-85.

(c) There was a lack of coordination between the Railways and the Durgapur Steel Plant with the result that Durgapur Steel Plant's capacity was not fully utilised while at the same time the Railways imported wheelsets which could have been made at Durgapur.

(d) The delay in execution of the Project was mostly attributable to "departmental reasons" such as delays in finalisation of drawings, issuing decisions, etc. Consequently, the WAP Administration had to pay compensation amounting to Rs. 78 70 lakhs to the contractors.

(e) The Administration had incurred avoidable expenditure of Rs. 1.74 lakhs in one contract for construction of overhead tank.

(f) The WAP Administration provided for excessive number of quarters resulting in avoidable investment of Rs. 57.55 lakhs. Besides, non-observance of the norms prescribed by Railway Board for plinth area entailed an additional expenditure of Rs. 7.52 lakhs.

(g) Because of delay in execution of the project, production commenced in September 1984 only instead of June 1982 envisaged earlier The targeted production of 23,000 axles was expected to be achieved in 1986-87.

(h) Though the location of the Plant at Bangalore was based, among other factors, on assurances of uninterrupted power supply, acute power crisis in the area has resulted in restricted operation of the electric arc furnace and underutilisation of capacity. The WAP Administration also incurred avoidable expenditure of Rs. 5.61 lakhs on electricity charges on account of incorrect assessment of maximum demand and Rs. 77.33 lakhs on irregular payment of sales tax on electricity.

(i) Because of inadequate supplies from Alloy Steel Plant, Durgapur import of 10,000 tonnes of blooms costing DM 84.2 lakhs had to be arranged during January to June 1986.

(j) The performance of the arc furnace was below its rated capacity as per manufacturer's specification. The WAP had been able to achieve 150 heats only per month against the required 200 heats per month.

(k) The percentage of rejections which was as high as 58.5 in the initial months is stated to have come down to 18 in February 1986. A permanent solution to minimise rejections and to establish quality production is yet to be explored.

(l) Contrary to the terms of collaboration agreement, the Administration had borne the expenditure on air fare for the visit of one representative of the firm.

(m) The collaboration agreement provided for payment of royalty at 5 per cent of the cost of manufacture of wheels. According to terms of payment the Railways become liable to pay royalty on escalations also depending upon revision of domestic steel prices.

(n) The Project Report indicated that the investment would yield a financial return of 40.3 per cent adopting landed cost and 27.8 per cent on the basis of CIF value of wheels. An assessment made by WAP in March 1986, however, showed that on the basis of JPC prices the return would be 5.2 per cent only at full production level.

APPENDIX II

(*Vide* para 1.3 of the Report)

Number of Wheelsets-Indigenous supplies and imports ordered.

Year	D S P	TISCO	WAP	Total Indigenous	Imports	Grand Total
1962—63	4868	4862	—	9730	45358	55,088
1963—64	18732	4808	—	23540	3084	26,624
1964—65	22691	5732	—	28423	9872	38,295
1965—66	23391	6174	—	29565	32683	62,248
1966—67	15203	5198	—	20401	2542	22,943
1967—68	15070	3848	—	18918	14025	32,943
1968—69	12222	1776	—	13998	164	14,162
1969—70	8952	1666	—	10618	3000	13,618
1970—71	11498	2062	—	13560	16088	29,648
1971—72	8119	1136	—	9255	1672	10,927
1972—73	7264	1008	—	8272	18788	27,060
1973—74	6950	792	—	7742	5314	13,056
1974—75	7661	863	—	8524	27760	36,284
1975—76	10433	1319	—	11752	18288	30,040
1976 - 77	10855	237	—	10892	—	10,892
1977 - 78	11413	737	—	12150	98	12,248
1978—79	13552	698	—	14250	13984	28,234
1979—80	13403	492	—	13895	4654	18,549
1980—81	11787	396	—	12183	24080	36,263
1981 - 82	9441	136	—	9577	11020	20,597
1982 - 83	7576	—	—	7576	23788	31,364
1983—84	6668	—	—	6668	23521	30,189
1984—85	2641	—	1187	3828	14096	17,924
1985 - 86	2616	—	10093	12704	1021	13,725
1986 87	4238	—	23153	27391	23000	50 391

APPENDIX III

(*Vide* para 1.23 of the Report)

Year	Item of stores	DSP		TISCO	
		Planned	Supplied	Planned	Supplied
1979–80	Wheels	20,000	6,258	4,147	3,244
	Axles	10,000	1,137	11,363	7,222
	Wheelsets	20,000	13,403	—	492
1980—81	Wheels	10,800	6,119	4,735	3,045
	Axles	3,000	1,375	2,246	6,958
	Wheelsets	17,400	11,787	—	396
1981—82	Wheels	14,700	9,138	—	2,338
	Axles	4,800	3,840	9,174	4,318
	Wheelsets	16,000	9,441	—	136
1982—83	Wheels	11,256	6,585	—	4
	Axles	3,000	2,246	14,567	—
	Wheelsets	14,448	7,576	—	—
1983—84	Wheels	11,200	6,130	—	—
	Axles	3,300	2,530	8,768	3,684*
	Wheelsets	10,050	6,668	—	—
1984—85	Wheels	15,714	5,769	—	—
	Axles	3,800	2,035	6,486	9,348*
	Wheelsets	5,700	2,644	—	—
1985—86	Wheels	14,140	17,828	—	—
	Axles	6,941	5,280	14,864	11,461
	Wheelsets	2,616	2,616	—	—
1986—87	Wheels	15,438	16,924	—	673
	Axles	6,868	4,290	8,211	8,982
	Wheelsets	5,779	4,238	—	—

*Includes supplies against the back-log of previous year.

APPENDIX IV

(*Vide* para 1.36 of the Report)

Comparative freight charges for axle steel and scrap with Nagpur and Yelahanka as alternative locations

Railway	Freight charges for 5000 tonnes Iron & Steel scrap to Nagpur	Freight charges for 5000 tonnes Iron & Steel scrap to Yelahanka	Station	Freight charges for 21,000 tonnes of ingot to	
				Nagpur	Yelahnka
Central	2,32,250.00	3,09,250.00	Bhadra-vati	19,88,700	5,55,650
Eastern	3,15,500.00	4,61,500.00			
Northern	3,32,250.00	5,21,000.00			
N.E.	3,43,330.26	5,87,051.40			
N.F.	4,92,000.00	5,98,000.00			
Southern	3,50,738.00	1,23,506.00			
S. Central	2,61,250.00	1,99,750.00			
S.E.	2,06,500.00	4,25,000.00			
Western	2,67,736.80	4,27,798.60			
Total	28,06,555.06	36,32,856.00		19,88,700	5.55,650
Difference	(+) (Rs. 8,26,290.94)		(−) (Rs.		14,33,050)

Net Difference 14,33.050(−) 8,26,290.94=Rs. 6,06,759.06

Total requirements of Steel Scrap for Cast Steel Wheel	60,000 tonnes
Scrap expected to be generated annually within Wheel & Axle Plant	15,000 tonnes
Balance to be transported from Railway Workshops which works out to about 5,000 tonnes from each Rly. Workshop.	45,000 tonnes
Total requirement of axle steel/forgings Assuming supplies from M/s. Mysore Iron & Steel Ltd.. Bhadr avati.	21,000 tonnes
Cost of Transporting Steel Scrap from Rly. Workshops to Yelahanka	Rs. 36,32,856.00
Cost of Transporting Steel Scrap to Nagpur	28,06,525.06
Difference	Rs. 8,26,200.94
Saving on transport of ingots/axles from Bhadravati to Yelahanka	Rs. 14,33,050.00
Net Saving in locating the plant in Yelahanka	Rs. 6,06,759.06

APPENDIX-V

Statement of Conclusions and Recommendations

Sl. No.	Para No.	Ministry/ Deptt.	Conclusion/recommendation
1	2	3	4
1	1.20	Steel/ Rlys.	The Committee note that in 1963-64, the DSP had a rated capacity for manufacture of 45,000 wheelsets which was raised to 75,000 wheelsets by 1970-71. The capacity of the plant was reviewed and refixed at 40,000 wheelsets by the Berry Committee in 1973. The Technical Committee established in 1973 to go into potential of DSP came to the conclusion that the optimum feasible capacity of the plant was 40,000 wheelsets a year. Subsequently the Sondhi Committee constituted in 1976, determined its achievable capacity at 18,000, 24,000, 30,000, 35,000 and 40,000 wheelsets in 1976-77, 1977-78, 1978-79, 1979-80 and 1980-81 respectively.
2	1.21	Steel/ Rlys.	The Committee note with dismay that the production of wheelsets was much below the rated capacity and even when the original capacity was derated in 1973 on the advice of the Technical Committee the actual performance during 1984-85 to 1986-87 was between 6.5% and 10.5% of the derated capacity of 40,000 wheelsets.
3	1.22	Steel/ Rlys.	The Committee note that the Government has consistently failed to implement fully the recommendations of the Various Committees for increasing production. As early as 1967 the Kirk and Monkhouse Committee had recommended the installation of an electric furnace and this recommendation was reiterated by subsequent Committees also. The

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			Sondhi Committee reiterated in 1976 the same recommendation for installation of an electric furnace for production of clean steel but so far the electric furnace has not been installed. The recommendations of the Sondhi Committee for the establishment of a technology cell for evaluation of needs for modernisation, replacement, renewals etc. had also not been implemented. Further, the Sondhi Committee observed that the then existing price realisation of DSP was much less than half the cost of hroduction and 1/3rd of the landed cost of similar wheelsets and also viewed that it would be unreasonable to expect any production unit to increase production and sustain it to the high level without realising reasonable prices. In the circumssances, the need of settlement of the price to be paid by the Railways by referring the matter to a separate body was recommended by Sondhi Committee.
			The Committee regret to note that no steps were taken for installation of a new electric furnace, improving the price realisation or implementing various other measures recommended for improvement of production at DSP. Instead, the Government went ahead with the establishment of a new wheel and axle plant at a very high cost to the exchequer. The Committee are still not convinced whether the rate now paid for wheelsets to DSP is reasonable and meets the cost of production. The Committee are of the considered view that had the recommendations of Various Committees constituted for the improvement of production at DSP implemented with due promptitude, the establishment of another WAP at Yellahanka could have been avoided. At this stage they can only hope that the Government would draw a lesson from this sad experience and would exercise a prudent caution in establishing new projects of huge financial value so as to ensure that meagre resources of the country

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			are not wasted in projects which would not be needed if steps are taken for improving performance of already installed facilities. The Committee note that steel manufactured at DSP has not been fully clean resulting in substantial rejection at the time of casting of wheelsets and axles. They were also informed during evidence that one of the furnaces has been able to achieve less than 1/3rd of its rated capacity. Other dominating reasons for low production at DSP were poor labour output despite modifications in incentive scheme and poor quality of equipment like hammer. The Committee note in this connection that the Committee on Public Undertakings had gone into the working of the DSP on more than one occassion and had made several recommendations. Lameutably the Government failed to implement the recommendations of the Various Committees technical and otherwise with the result that the Plant continued to work at low capacity and investment on a much larger scale was made instead of much smaller investment required to improve production in DSP's wheel and axle plant. To ensure attaiment and maintenance of self-sufficiency in production of wheels and axles, it is imperative that all possible steps are taken with due promptitude so that DSP is able to manufacture to capacity of 40,000 wheelsets. The Committee hope that the Government would draw a time-bound programme for optimum utilisation of the capacity of DSP after critically analysing the reasons for shortfall. It is also essential to clearly monitor the implementation of the programme at an appropriately higher level. The Committee would also like to be apprised of further developments in this regard.
4	1.33	Railway	The Committee note that the actual requirement of the Railways between 1970-71 and 1979-80

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			was not more than 22,000 wheelsets per annum. They, therefore, are of the opinion that there was no justification whatsoever in 1972 initiating the establishment of a new plant and there was failure at all levels in not judging the requirements realistically.
5	1.34	Railway	While assessing the need for establishment of the plant in 1975-78 the requirements of wheels and axles respectively were assessed at 1,96,200 and 77,162 at the end of 1983-84. The Committee, however, note that the actual procurement of wheels and axles was much less than the assessed figures. They are of the view that the project for setting up a new wheel and axle plant was approved on the basis of overrated requirement. At this belated stage the Committee can only express the hope that the Government would adequately strengthen their project planning machinery in future and ensure that requirements are realistically and correctly assessed and mistakes of this type are not repeated in future.
6	1.40	Railway/ Steel	According to the Railways, the factors to be considered for selection of site for a plant of this nature are abundant availability of cheap electricity, easy availability of steel from steel plants, convenient transport facilities and proximity to industrial areas for supply of tools etc. The Committee have been informed that these factors were fully taken into account when the decision was taken to establish the plant at Yelahanka. The Committee, however, note that no State Government other than that of Karnataka seems to have been consulted on the availability and supply of electricity. The cost of operations had also been assessed on the basis of supply of steel from Bhadravati in Karnataka. There has, however, been no supply of steel from Bhadravati. But on the other hand steel is obtained mainly from Durgapur in the East. What is more disturbing is that the end product is being

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			transported essentially to the same area from where the raw materials are brought. The Committee desire to know whether the Ministry of Steel was contacted for supply of steel from Bhadravati and whether any assurance for supply was given. The Committee also desire to know at what point of time it was clear that supply of steel from Bhadravati was not fesible and why a review of location with reference to the source of supply of raw material was not conducted.
7	1.41	Railway	The Committee also note that the assurance for adequate power supply was not taken from an appropriate level viz. State Government and was not thus implemented. Further, the cost of power supply was no longer economical in Karnataka. The Committee regret to note that none of the factors relevant to location of the plant of this nature were fulfilled, with the result that location of the plant at Yelahanka is resulting in avoidable transportation of raw materials and finished products between the eastern sector and Yelahanka.
8	1.42	Railway, Planning	The Committee are surprised that the Planning Commission which ought to have examined the location of the plant did not critically examine all the relevant factors and the Committee cannot help remarking that the Planning Commission functioned as a passive observer to the decision regarding location of the plant. This leads the Committee to an inevitable conclusion that there was a total failure of planning at all levels and no serious thought was given to all the relevant factors before taking a final decision to establish the plant at Yelahanka. At this stage the Committee can only hope that the Government would be careful in future in giving approval to projects which should be financially viable and also in overall financial interests of the country.

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9	1.43	Railway, Steel	When the sanction for the new plant was obtained in 1975-76, it was assessed that the need for import would arise only when the requirement exceeded 1.7 lakh wheels per annum. The Committee however, note that notwithstanding the establishment of a new plant, Railways continue to incur substantial expenditure in the form of foreign exchange for import of wheels, axles and wheelsets The total expenditure in this regard during the 5 years from 1982-83 to 1986-87 is reported to be Rs. 148.6 crores. The Committee are of the opinion that the expenditure in foreign exchange on this account can be avoided if effective steps are taken to optimise production ot wheelsets particularly at the DSP. Gross under-utilisation of capacity within the country and large scale import of wheelsets are indicative of the lack of concerted effort on the part of the Government to make full use of the facilities already created at considerable cost for production of wheelsets. The Committee can hardly over-emphasise the need for avoiding such situations in future and urge upon Government to make serious efforts to improve indigenous production of wheelsets particularly at DSP. The Committee would like to know the steps taken by Government in this direction.
10	2.10	Railway	The Committee note that when approval of Parliament was taken in 1973-74, the total estimated cost of the project was Rs. 21 crores. This estimated cost was raised to Rs. 38.60 crores by June 1975, an increase by 84% within a short span. Based on the revised estimation, the work was allowed to be carried through and in October 1980, the cost was further revised by over 6 times over the original estimated cost of Rs. 21 crores. The Committee are surprised to be informed that the revision of estimate made in June 1975 was also an abstract estimate.

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11	2.11	Railway, Finance Planning	The Committee are not convinced by the various justifications given for frequent revision of cost estimate. The Committee disapprove that gross underestimation of the project cost on the basis of which the sanction was obtained initially and recommend that the executing Ministries, the Planning Commission and the Finance Ministry must have inbuilt mechanism to verify cost estimates and ensure that the estimates of the projects placed before them are prepared realistically.
12	2.12	Railway	In December 1980 the Committee were informed of a completion schedule of the project by June 1982 for wheel shop and June 1983 for axle shop ; however the budget provision being then under process for 1981-82, envisaged an outlay of Rs. 39.75 crores only leaving over 50% of estimated revised cost to be provided later. In this connection, Audit has pointed out that when the assurance for completion by a scheduled date was given to the Committee by the Railways, it was known quite well to the Railways that the work could not be completed by the dates indicated. The Railways have stated that certain circumstances were not foreseeable and that the schedule of completion was given "on the basis of self-imposed targets". The Committee are of the opinion that the reasons given now are no more than after thoughts and that it was within the knowledge of the Railways in December 1980 that the project was not likely to be completed by the dates intimated to the Committee.
13	2.13	Railway	The Committee also note that the estimated cost of project at the time of commissioning was Rs. 146 crores and by 1984-85, expenditure incurred

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			was Rs. 137.85 crores. Further, the expenditure on project is continued to be incurred even thereafter. The Committee are surprised to note that the project taken up on the basis of an estimate of cost amounting to Rs. 21 crores is now likely to cost Rs. 146 crores approximately. The Committee view the exorbitant escalation in cost with great concern and regret that a project of this magnitude should have been taken up on the basis of a totally unrealistic estimate of cost. The run away escalation in cost leads the Committee to the inevitable conclusion that there was a total failure of project planning. In the context of severe constraint of resources, it is imperative that project plans are prepared realistically and effective steps are taken to curb the persistent and unpleasant tendency to underestimate the projects on the basis of unrealistic estimates of cost. The Committee would like to be assured that such lapses do not recur in future and would also like to be apprised of the steps taken in this regard. The Committee recommend that a broad analysis of the items that constituted the outlay as envisaged in 1977, as revised in 1981 and 1985 as actually incurred with reasons for substantial variations, if any, may be furnished.
14	2.16	Railway	The Committee note that the contracts with NPCC and NBCC were entered into in January 1981 and June 1981 with scheduled dates for completion in October 1982 and March 1983 respectively. However, for the year 1981-82 the budget provision made was only Rs. 39.75 crores, which could have covered upto not more than 50% of the estimated cost of the project. Further in the year 1982-83, the provision was for another Rs. 30 crores which covered another 25% of the project cost. Thus the budget provisions in both these years were not adequate for completion of contracts by the scheduled dates. The main factors like non availa-

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			bility of design in time, delay due to un-usual weather condition, non-availability of cement, steel etc. in time to which delays in execution of the works have been attributed, should have all been foreseen in the context of the previous experience over the years and a realistic time schedule drawn. In the circumstances, the Committee are constrained to note that the un-realistic time schedule for completion of the two works has resulted in an extra expenditure to the extent of Rs. 83.33 lakhs by way of payment of cost escalation to the two contractors. In the opinion of the Committee the entire expenditure due to escalation in cost was totally avoidable in these cases.
15	2.22	Railway	The Committee note that arrangements have been made to ensure regular transfer of technological upgradation to the WAP and hope that a constant watch will be kept to ensure that all advances in technology that take place upto the date of expiry of agreement in 1992 are duly passed on. The Committee, however, do not accept the stand of the Ministry that the agreement for transfer of technology and designs does not include design calculations also because, in the opinion of the Committee, these are covered by the words, "and other relevant data" mentioned in the agreement after the words, "transfer of technical know-how including designs, drawings, specifications, manuals". The Committee desire that the matter may be examined from the legal angle in consultation with the Law Ministry and appropriate action taken to secure the design calculations from the collaborators.
16	2.30	Railway	The Committee are surprised to note that a decade after the agreement was entered into, the Financial Commissioner of the Railways has observed that the contract had been loaded heavily in favour of the collaborator in respect of the payment of royalty. The Committee would like to

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			know whether the financial aspect was not examined in consultation with the Financial Commissioner at the time the contract was entered into.
17	2.31	Railway	The Committee are also surprised to note that even 4 years after commencement of production the costing system in the WAP is still under finalisation. The Committee can hardly over emphasise the need for expeditious finalisation of the costing system which will be of great help to the Management in the control of costs. The Committee would like to know the progress made in finalisation and implementation of the costing system.
18	2.32	Railway	The Committee are also surprised to note that as against the cost of wheel worked out by WAP in July 1985 at Rs. 5,700 the Ministry has chosen to pay royalty at the rate of Rs. 7,700 being the price fixed by JPC. Since the contract provides for working out the royalty at 5% of the net selling price, it was imperative on the part of the Railways to have evolved a mechanism in consultation with the Financial Commissioner to work out the net selling price before agreement on payment of the royalty. The Committee find no justification for failure in determining the net selling price for payment of royalty in accordance with conditions of contract and recommend that steys should be taken to ascertain the same by a time bound programme of three months so that due adjustments in royalty can be made without delay keeping in view the financial interests of the Government.
19	3.8	Railway, Steel	Notwithstanding the reported achievement of targets by WAP the actual production of the wheel and axle plant of DSP and WAP Yelahanka continues to be considerably lower than their rated capacities. The Committee consider it highly unfortunate that despite considerable underutilisation of the available capacity in the country the

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			Railways continue to import substantial quantity of wheels, axles and wheelsets. Having regard to the demand and supply situation, the Committee are convinced that unless efforts are made to improve the performance by DSP, the drain on foreign exchange can not be halted. The Committee hope that Ministries of Railways and Steel will function in close coordination to ensure that the import of wheels, axles and wheelsets is totally stopped under a time bound programme.
20	3.9	Railway	The Committee further note that detailed proposals are being prepared by the WAP for organising necessary inputs including installation of the third furnace and other balancing equipment, etc. for expanding the capacity of WAP to 85,000 wheels per year as provided in the Collaboration agreement. The Committee urged that Government should take urgent measures to make provision for third furnace and balancing equipment in order to improve production to the maximum extent possible in order to save precious foreign exchange.
21	3.18	Railway	The Committee note that when the project was cleared in 1974 for execution, it was estimated that the project would yield a return of 40.3% based on landed cost. When the cost of project was revised in December 1980 to Rs. 129 crores, the Ministry anticipated a return of 17% on the investment and observed that tke return would be even more as the return had been calculated with reference to the then price level only. However it is now stated that the return on the investment would be only 5.2% based on JPC prices and still less if prices of imported wheelsets are taken into account (after adding C and F costs). Asked to justify the low achievement on financial angle, the Ministry has argued that commercial prices can never be based on cost considerations. The Committee do not approve of the shift in stand on principles to be adopted for evaluation of targets

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			and performances and recommend the need for a consistent policy on basic issues like return on investments for evaluation of performances.
22	3.19	Railway	The Committee recommend that a comprehensive study of the factors that go to make up the cost of production should be undertaken to ascertain how costs have escalated and rate of return squeezed, so that the areas for economy and control can be located and measures taken to reduce the cost of production.
23	3 24	Railway	The Committee regret to note that despite assurance given by the State Electricity Board for supply of adequate power before the project was decided to be set up in Karnatake, the promise has not been kept and excess over the cuts prescribed are subjected to heavy penalties. Further irregular power supply is also causing problems for maintaining qualitative production and as a result rejections do take place. The Committee recommend that the overall effect and consequential loss resulting from inadequate and irregular supply of power should be discussed at the highest level with the State Government and a workable solution found.
24	3.25	Railway	The Committee are surprised to note that though central Government is not liable to pay sales tax, the WAP Administration continued to pay sales tax upto March 1986 and the total payment on this account upto March 1986 amounted to Rs. 77.33 lakhs. The Committee recommend that the question of refund of the amount paid wrongly should be pursued vigorously with the State Government and the Committee apprised of further developments in this regard.
25	3.33	Railway	The Committee note that due to constant monitoring of the process and bringing about improvement in the quality of inputs in their productivity effarts, it has been possible for the

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			Railways to bring down the rejections substantially which was 58.5% at one time to 12%. The Railways have also pointed out that the rejections have been brought down to low level as compared to the level of 16% envisaged in the Appraisal Report of the World Bank. This low rejection rate is also stated to be comparable to that achieved in the collaborator's plant in USA. The Committee, however, feel that present rejection rate of 12 per cent is still quite sizeable and a cause of concern. Since the total cost of wheel-sets includes the costs of rejection also and thus with high percentage of rejection, the rate of wheelsets is high, it is imperative that further efforts be made to bring down the rejection rate to the minimum possible level. The Committee recommend that the WAP should continue to make sustained efforts to remove the constraints or minimise their effects to ensure that there is less wastage and the quality of item produced is also of the required standard.

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