

**PUBLIC ACCOUNTS COMMITTEE  
(1977-78)**

(SIXTH LOK SABHA)

**TWENTY-FOURTH REPORT**

**RAILWAY EXPENDITURE**

**MINISTRY OF RAILWAYS  
(RAILWAY BOARD)**

[Paragraphs relating to Railway Expenditure included in the Report of the Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways)]



Presented in Lok Sabha on 22.12.77

Laid in Rajya Sabha on 22.12.77

**LOK SABHA SECRETARIAT  
NEW DELHI**

*December, 1977/Agrahayana, 1899 (S)*

*Price : Rs. 5.90*

**LIST OF AUTHORISED AGENTS FOR THE SALE OF LOK SABHA  
SECRETARIAT PUBLICATIONS**

Sl. No.	Name of Agent	Sl. No.	Name of Agent
<b>ANDHRA PRADESH</b>		<b>MAHARASHTRA</b>	
1.	Andhra University General Cooperative Stores Ltd., Waltair (Visakhapatnam).	10.	M/s. Sunderdas Gianchand, 601, Girgaum Road, New Princess Street, Bombay-2.
2.	G.R. Lakshmiapaty Chetty and Sons, General Merchants and News Agents, Newport, Chandragiri, Chittoor District.	11.	The International Book House (Private) Limited, 6, Ash Lane, Mahatma Gandhi Road, Bombay-1.
<b>ASSAM</b>		12.	The International Book Service, Deccan Gymkhana, Poona-4.
3.	Western Book Depot, Pan Bazar, Gauhati.	13.	Charles Lambert & Company, 10, Mahatma Gandhi Road, Opposite Clock Tower, Fort, Bombay.
<b>BIHAR</b>		14.	The Current Book House, Maruti Lane, Raghunath Dadaji Street, Bombay-1.
4.	Amar Kitab Ghar, Post Box 78, Diagonal Road, Jamshedpur.	15.	Deccan Book Stall, Fergusson College Road, Poona-4.
5.	M/s. Crown Book Depot, Upper Bazar, Ranchi.	16.	M & J. Services, Publishers Representatives, Accounts & Law Book Sellers, Bahri Road, Bombay-15.
<b>GUJARAT</b>		<b>MYSORE</b>	
6.	Vijay Stores, Station Road, Anand.	17.	People Book House, Opp. Jaganmohan Palace, Mysore.
7.	The New Order Book Company, Ellis Bridge, Ahmedabad-6.	<b>RAJASTHAN</b>	
<b>HARYANA</b>		18.	Information Centre, Government of Rajasthan, Tripolia, Jaipur City.
8.	M/s. Prabhu Book Service, Nai Subzi Mandi, Gurgaon.	19.	M/s. Usha Book Depot, 585/A, Chitra Bazar, Tripolia, Jaipur.
<b>MADHYA PRADESH</b>		<b>UTTAR PRADESH</b>	
9.	Modern Book House, Shiv Vilas Palace, Indore City.	20.	Law Book Company, Sardar Patel Marg, Allahabad-1.

CORRIGEND: TO THE TWENTY FOURTH REPORT SIXTH  
LOK SABHA OF THE PUBLIC ACCOUNTS COMMITTEE.

<u>Page</u>	<u>Para</u>	<u>Line</u>	<u>For</u>	<u>Read</u>
24	1.58	14	standards	standard
		18	case	cases
25	1.62	15	he supplies	the supplies
70	1.166	2	tyre supplied	tyres supplied
72	1.170	5	permission	persuasion
73	1.174	3	curent	current
82	1.195	3	brought	bought
	1.196	4	because to	because the
90	1.218	3	presing	pressing
91	1.221	1	1.121	1.221
97	1.238	6.7	The stores were. .... inspection	The stores were returned to the District Controller of Stores, Mahalaxmi but the firm that <u>ab initio</u>
<del>105</del>	<del>1.258</del>	<del>2 from bottom</del>	<del>ab initio</del>	<del>that <u>ab initio</u></del>

<b>C O N T E N T S</b>	<b>P A G E</b>
<b>COMPOSITION OF THE PUBLIC ACCOUNTS COMMITTEE (1977-78)</b> . . . . .	(iii)
<b>INTRODUCTION</b> . . . . .	(v)
<b>REPORT</b> . . . . .	1
<b>APPENDICES :</b>	
<b>I. Note on the efforts made by the Ministry of Railways and ISM to persuade the supplier firm to agree to the replacement of defective cylinder heads</b> . . . . .	107
<b>II. Copy of the note furnished by the Ministry of External Affairs on the coverage by ISM of the Railways indent for cylinder heads</b> . . . . .	111
<b>III. Chronological summary of events in the case of DLW's indent for WDM-4 loco cylinder heads placed on ISM Washington</b> . . . . .	116
<b>IV. Conclusions/Recommendations</b> . . . . .	118

**PART II\***

- Minutes of the sittings of PAC held on
- 27-8-76 (AN)
  - 28-8-76 (FN)
  - 4-9-76 (FN)
  - 20-12-77 (AN)

**PARLIAMENT LIBRARY**  
 Library & Reference Service  
 Central Govt Publications  
 Acc. No. B. . . . .  
 Date 10.3.78

---

\*Not printed. One cyclostyled copy laid on the Table of the House and five copies placed in Parliament Library.



**PUBLIC ACCOUNTS COMMITTEE  
(1977-78)**

**CHAIRMAN**

Shri C. M. Stephen

**MEMBERS**

*Lok Sabha*

2. Shri Halimuddin Ahmed\*
3. Shri Balak Ram
4. Shri Brij Raj Singh
5. Shri Tulsidas Dasappa
6. Shri Asoke Krishna Dutt
7. Shri Kanwar Lal Gupta
8. Shri P. K. Kodiyan
9. Shri Vijay Kumar Malhotra\*
10. Shri B. P. Mandal
11. Shri R. K. Mhalgi
12. Dr. Laxminarayan Pandeya
13. Shri Gauri Shankar Rai
14. Shri M. Satyanarayan Rao
15. Shri Vasant Sathe

*Rajya Sabha*

16. Smt. Sushila Shanker Adivarekar
17. Shri Sardar Amjad Ali

---

\*Elected w.e.f. 23 November, 1977 *vice* Sarvashree Sheo Narain and Jagdambi Prasad Yadav ceased to be Members of the Committee on their appointment as Ministers of State.

(iv)

18. Shri M. Kadershah
19. Shri Piare Lall Kureel *urf* Piare Lall Talib
20. Shri S. A. Khaja Mohideen
21. Shri Bezawada Papireddi
22. Shri Zawar Hussain

**SECRETARIAT**

1. Shri B. K. Mukherjee—*Joint Secretary*
2. Shri T. R. Ghai—*Senior Financial Committee Officer.*

## INTRODUCTION

I, the Chairman of the Public Accounts Committee, as authorised by the Committee, do present on their behalf this Twenty-Fourth Report of the Public Accounts Committee (Sixth Lok Sabha) on paragraphs relating to Railway Expenditure included in the Report of the Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways).

2. The Report of the Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways) was laid on the Table of the House on 6 May, 1976. The Public Accounts Committee (1976-77) examined the paragraphs relating to Railway Expenditure at their sittings held on the 27 and 28 August 1976 and 4 September 1976, but could not finalise the Report on account of the dissolution of the Lok Sabha on 18 January 1977. The Public Accounts Committee (1977-78) considered and finalised this Report at their sitting held on the 20 December 1977 based on the evidence taken and the further written information furnished by the Ministry of Railways (Railway Board). The Minutes of the sittings form Part II\* of the Report.

3. A statement containing main conclusions/recommendations of the Committee is appended to this Report (Appendix IV). For facility of reference these have been printed in thick type in the body of the Report.

4. The Committee place on record their appreciation of the commendable work done by the Chairman and Members of the Public Accounts Committee (1976-77) in taking evidence and obtaining information for this Report.

5. The Committee also place on record their appreciation of the assistance rendered to them in the examination of these paragraphs by the Comptroller and Auditor General of India.

6. The Committee would also like to express their thanks to the Chairman and Members of the Railway Board for the cooperation extended by them in giving information to the Committee.

NEW DELHI ;  
December 20, 1977.  
*Agrahayana 29, 1899 (Saka).*

C. M. STEPHEN,  
Chairman,  
Public Accounts Committee.

---

\*Not printed. One cyclostyled copy laid on the Table of the House and five copies placed in the Parliament Library.

## **REPORT**

### *Railway Expenditure*

#### **Northern Railway—Premature failure and emergency procurement of cylinder heads of WDM-4 diesel locomotives**

##### *Audit Paragraph*

1.1. Cylinder head is an important component of a diesel locomotive. Its failure immobilises the diesel locomotive. Therefore, it is necessary to maintain adequate stock of cylinder heads.

1.2. Seventy-two WDM-4 locomotives imported from U.S.A., were commissioned during August 1962 to June 1963. These locomotives were allotted to Northern Railway and were based at the Diesel Locomotive Shed, Mughalsarai. There are 16 cylinder heads in each locomotive; the 72 locomotives had 1,152 cylinder heads fitted on them. One thousand one hundred and eightyfour cylinder heads were initially received as spares along with these locomotives. The design of these cylinder heads was modified by the manufacturer during 1965-71 (modifications I, II and III) for improved performance in higher horse-power engines. (So far as the Northern Railway is concerned these cylinder heads continued to be used in engines of same horse-power as before).

1.3. The normal life of these cylinder heads had not been specified by the manufacturer/supplier but, based on the experience of many years of maintenance of WDM-4 locomotives, the Railway Administration had assessed the average service life of a cylinder head as three years.

1.4. Cylinder heads for WDM-4 diesel locomotives had been purchased from two foreign firms—one in U.S.A. and another in West Germany. While the U.S.A. firm had offered warranty period of one year for the cylinder heads installed as replacement item in a locomotive, the warranty period allowed by the West German firm was one year after the date of shipment or 1,00,000 miles (1,60,000 Kms), whichever would occur first.

1.5. The details of cylinder heads procured and cracked are shown in the table below :—

Type of cylinder heads	Number received					Number cracked			
	Upto June- Decem- ber		During			Upto Dece- mber			
	1963	1971	1972	1973	1974	1971	1972	1973	1974
<b>(A) Procured from U.S.A., firm</b>									
Original spares	*1184	..	..	..	..	1184	..	..	..
Modification I (1965-66)	..	@241	..	..	..	231	..	..	..
Modification II (1967-68)	..	£850	..	..	..	400	200	100	84
Modification III (1969-70 and 1971-72)	..	†848	400	221	620	112	157	371	415
Total . . . . .	1184	1939	400	221	620	1927	357	471	499
<b>(B) Procured from West German firm</b>									
	..	..	..	..	96	..	..	..	73
								(Upto April 1975)	

\*received during 1962-63

@received during 1965-66

£received during 1967-68

†received during 1969-70 and 1971-72 (up to December 1971)

1.6. The average service life of 42.5 per cent of the cylinder heads received in 1971 and 66.5 per cent received in 1972 from the firm in U.S.A., was less than three years; 25 per cent of the cylinder heads received from the same firm in 1974 cracked within a year of service.

1.7. The firm, in March, 1973, attributed the failure to certain defects in their maintenance by the Railway, stating that the radiator cooling system pressure cap which was located on the make up water tank of that system had never been changed and the locally made rubber seals used were in a deteriorated condition and were potential leakers.

1.8. The claims lodged by the Railway Administration in September 1974 and November 1975 for failure of 67 cylinder heads (costing Rs. 96,756) during warranty period has still (December 1975) not been accepted by the firm. It wanted that the defective cylinder heads should be shipped to U.S.A., freight prepaid, for inspection in its premises, as per warranty clause.

1.9. The Railway Administration stated (August 1975) that the stand taken by the firm was not acceptable as it was obviously trying to escape from the claim lodged by the Railway and that there was no reduction in the rate of cracking of the cylinder heads even after the renewal of 140 pressure caps on condition basis. However the Railway Administration in April 1975 identified thermal overload and inadequate cooling arrangements as prime contributors to the premature cracking of these cylinder heads and suggested to the Railway board in April 1975 that loads of mail and express trains would require reduction by one bogie and as a further means of reducing the thermal load, the fuel rack setting for WDM-4 should also be slightly reduced.

1.10. Out of 96 cylinder heads supplied by the West German firm, 73 (76 per cent) costing \$ 14,210.71 (Rs. 1,04,693) cracked after giving service ranging between 36 days and 411 days only (the lowest and the highest kilometrage done being 14,040 to 1,60,290 against the warranty of 1,60,000 kms). In accordance with the warranty clause, the cylinder heads, which cracked within one year, were required to be returned to the manufacturer at his factory, transportation charges prepaid. The firm, therefore, asked the Railway Administration to ship the defective cylinder heads to its works in California. As the cost of returning cylinder heads was high, the firm was advised to inspect them at Mughalsarai shed. The matter is yet (December 1975) to be discussed with the firm. In the meantime, the Railway Administration decided in April 1975 not to buy any more cylinder heads from this firm.

1.11. As the average life of cylinder heads is three years, about 400 cylinder heads are estimated to be required in a year for a fleet of 72 WDM-4 locomotives.

1.12. The Mechanical Department had placed an indent for procurement of 400 cylinder heads in November 1971 on the Controller of Stores after taking into account its two indents for 400 cylinder heads placed in July 1971 and 200 cylinder heads in October 1971 and the considerations that the supply of 400 cylinder heads was not likely to materialise before January 1972 and that shortage of cylinder heads was anticipated by that time. The indent of November 1971 was, however, not entertained by the Controller of Stores on the plea that supplies against the order for 400 cylinder heads placed in October 1971 (against the indent of July 1971) were outstanding and that the indent for 200 cylinder heads of October 1971 was to be covered. However, a quantity of 180 numbers was included in a bulk indent sent to Diesel Locomotive Works in April 1972.

1.13. In October 1972, the Divisional Mechanical Engineer repeated his request for procurement of 400 cylinder heads as there were only 200 cylinder heads in stock which were not considered sufficient to meet the estimated future requirements. In August 1973, only 45 cylinder heads were in stock. According to the Railway Administration this was due to the Indian Supply Mission, Washington, having not placed an order till November 1973 against an indent of September 1972. The low stock position necessitated the Railway Administration making emergency purchases of cylinder heads. Consequently, it was decided in October 1973 to air-lift 48 cylinder heads and another 48 cylinder heads in January 1974.

1.14. As the U.S.A. firm, which had supplied the locomotives, indicated in October 1973 that it would take approximately seven months after the placing of the order to supply 48 cylinder heads, the Railway Administration placed an order for 96 cylinder heads on a West German firm-48 in November 1973 and again, 48 in January 1974. The expenditure incurred on airlifting from West Germany was Rs. 2.25 lakhs.

1.15. The West German firm from which the cylinder heads were procured and airlifted, had not supplied any cylinder heads to the Railway previously and as such the Railway Administration had no experience of the quality of the cylinder heads obtained from this firm. Till February 1975, seventy-three of these cylinder heads failed prematurely as stated earlier.

1.16. Had timely action been taken for procurement of cylinder heads, expenditure on airlifting as well as procurement of cylinder heads from an untried firm, which suffered from comparatively greater premature failures, could have been avoided.

[Paragraph 10 of the Report of the Comptroller and Auditor General of India for 1974-75, Union Government (Railways)]

1.17. From the details of the cylinder heads procured from the U.S.A. firm and cracked during the period from 1962 to 1974, it is seen that out of 4,364 heads received, 3,254 heads cracked. According to the Member Mechanical this gave an average life of over four years.

1.18. The Committee called for information regarding the number of cylinder heads which cracked within one year, within two years and within three years separately out of the total number of cylinder heads

received in 1971, 1972, 1973 and 1974. The information furnished by the Ministry of Railways in this behalf is tabulated below :

Series	Total No. received	Cracked within one year	Cracked within one to two years	Cracked within two to three years	Total No. of heads cracked within 3 years
1971	450	10	36	90	136
1972	400	9	135	110	254
1973	221	7	116	25	148
1974	428	13	91	66	170
	1,499	39	378	291	708

It is seen from the above that out of 1499 cylinder heads received from U.S.A. firm between 1971 and 1974, 708 (47 per cent) heads cracked within 3 years. Further, 39 heads cracked within one year, 378 heads cracked within one to two years and 291 heads cracked within two to three years.

1.19. According to the Audit Paragraph the normal life of these cylinder heads had not been specified by the manufacturer/supplier but, based on the experience of many years of maintenance of WDM-4 locomotives, the Railway Administration had assessed the average service life of a cylinder head as three years. The Committee enquired whether the Ministry of Railways had gone into the question of fixation of service life of cylinder heads in consultation with the manufacturers and if so, what was the normal life that had been fixed for a cylinder head. In a note, the Ministry of Railways have stated :

“The life of diesel engine components is dependent on a number of parameters which ultimately have an influence on the mechanical and thermal loading on the individual assemblies and components. In mainline locomotives, due to the severe weight and space limitations, it becomes necessary to pack as much power as possible in an engine thus increasing the mechanical and thermal loads. Severity imposed by operations, (high load factor—dependent on trailing loads, speeds and gradients) by high ambient temperature prevalent in our country, and due to the use of high sulphur diesel fuel, all lead to an impact ultimately on the service life of components.

The influence of the above factors on service life of components can be easily seen from the fact that the same cylinder heads,



which have given an average service life of 3 to 4 years on the WDM-4 locomotives (2624 HP from 16 cylinders turbo-charged engine) have given a life of over 6 years on the YDM3|YDM 5..... at Abu Road Shed of the Western Railways (1390 HP from 12 cylinders of the same type of engine but non turbocharged). On the YDM3|YDM 5 application, the lower HP rating per cylinder and the lower sulphur in HSD oil have resulted in longer component life.

Keeping in view the above factors, Northern Railways have been planning for the procurement of imported.....cylinder heads on the basis of approximately three years' life.

The life of diesel loco components is not fixed by Manufacturers but it is dependent upon the operating conditions."

1.20. Explaining the reasons for the inadequate life of cylinder heads supplied by M/s. General Motors Overseas Operations, New York the Member Mechanical has stated during evidence :

"On the Indian railways we use...16 cylinder turbo-charged engine on WDM-4 locos at MCS and 12 cylinder 'naturally aspirated' non-turbo charged engine on YDM 3 and YDM 5 locos at Mount Abu, on meter gauge. On WDM-4, 2624 HP is obtained from 16 cylinder turbo charged engine i.e. 164 HP per cylinder as compared to 116 HP per cylinder on meter gauge. The thermal stresses due to the load factors had a direct impact on the life of the cylinder head.

WDM-4 cylinder head is subjected to more sustained thermal loading since it is a 2 stroke engine where there is one power stroke for every alternate revolution ; being a four stroke engine. However, WDM-2 cylinder head on Alco engine gets thermal relief as comparatively cold inlet air passes through the inlet valve passages in the cylinder heads. No such relief accrues on WDM-4 cylinder head. On the other hand, the air-inlet through ports in cylinder liners of WDM-4 General Motors loco provides certain amount of cooling of the cylinder liner which is not the case on WDM-2 cylinders. These design parameters result in lesser life of cylinder heads on General Motors two stroke engine with higher liner life of cylinder liner whereas on the Alco engine of WDM-2 loco, cylinder head life is longer but cylinder liner life is much less. On WDM-4 General Motors cylinder life of over 6 years is obtained compared with Alco WDM-2 loco cylinder liner life of about 2½ to 3 years.

Besides, the operating conditions play a very vital role in determining the life of important components. This utilization of MCS WDM-4 locos has gradually increased. Against the figure of 328 kms per day per engine in use in 1962-63 the figure in 1973-74 was 482 kms per day per engine in use. It has gone up--50% more. Again from April, 1966 WDM-4 diesel locos were put on fast mail and express trains with heavier loads. In April, 1966, two diesel locos were put on one of the trains with a daily utilization of 788 kms per day per loco. Between 1966 and 1973, nine pairs of mail and express trains were dieselised. What I am trying to say is that earlier the engines were put to a much lesser work than they were put to after 1968. The number of diesel locos of main and express trains increased from nil in 1962 to 2 in 1966 and to 16 in November '73. During 1973, the utilization of mail and express locos was 761 kms per day per engine in use. The speed of Howrah-Kalka mail which was 90 kms per hour booked and 100 kms per hour maximum, which was raised to 100 kms per hour booked and 110 kms per hour maximum in November, 1971. Similarly, the Rajdhani Express train was introduced using the same locomotive.

During the earlier years of usage of WDM-4 locos, these were mostly utilised for haulage of loaded coal wagons from Mughalsarai to upcountry and the load used to be 2000 to 2250 tonnes. The same load has gradually increased and is now about 3,600 tonnes. The work done by the same loco and same cylinder is much higher than in the earlier years. On some locos, there were cases of cylinder heads cracking in less than 3 years because of such locos being deployed on heavy duty services as mentioned by me."

1.21. It is seen from the Audit Paragraph that the design of the cylinder heads was modified by the manufacturer during 1965-71 for improved performance in higher horsepower engines. However, these cylinders with modified design continued to be used on WDM-4 locomotives of the same horsepower as before. The Committee desired to know whether these modified cylinder heads could be used successfully in the engines of lower horse power fitted in WDM-4 locomotives without affecting the performance of engines or the life of the cylinder heads. In a note, the Ministry of Railways have stated :

"Yes. The modification I, II and III in the design of cylinder heads were undertaken by.....(Manufacturer) to improve

their performance. The cylinder heads to original design were being used on Indian Railways in Metre Gauge YDM 3/YDM-5 locos and Broad Gauge WDM-4 locos of 1390 HP and 2624 HP respectively under standard conditions. These cylinder heads were giving a life of over 6 years on the lower horse power non-turbo charged metre gauge locomotives whereas on comparatively higher horse power turbo charged locomotives (WDM-4) these cylinder heads gave a life of 3 to 4 years. The modifications were therefore related to better life expectancy, and as such, these modified cylinder heads could be used on WDM-4 locomotives without affecting the performance of these engines or their life. Only modified cylinder heads are marketed by.....(Manufacturer) for application on all horse-power ranges of their 567 diesel engines."

1.22. The Chairman, Railway Board has stated during evidence :

"The word 'higher' has been used in a relative manner. That is in reference to thousand H.P. limit and above horse power. It was not really in reference to the WDM 4 locomotives. WDM 4 loco motive was having a horse power of 2600. What they meant by higher horse power—it did not mean higher than 2500 HP at that time. In fact this firm did not go in for higher than 2600 H.P. till three-four years back. So the modifications were in their research and development programme. The word 'higher' was a relative term."

1.23. The Committee asked whether it had been ascertained that these modified versions of cylinder heads were being used in other countries or these were being experimented only in developing countries like India. The Member Mechanical has stated :

"The point is that the General Motors are supplying cylinder heads for all the GM locomotives. Modifications I, II and III are modified version of the cylinder heads used throughout the world; it is not only for us. We have found that the modification was an improvement in circulating water in cylinder head; so that thermal loading is reduced; the modification has been found to be a definite improvement."

1.24. The Audit Paragraph points out that the average service life of 42.5 per cent of the cylinder heads received in 1971 and 66.5 per cent received in 1972 from the firm in USA, was less than three years and 25 per cent of the cylinder heads received from the same firm in 1974

cracked within a year of service. According to the supplier, the higher incidence of failure of cylinder heads on Indian Railways was attributable to the adoption of defective maintenance practices. When the Committee asked whether the Ministry of Railways agreed with this contention of the manufacturer, the Member Mechanical has stated :

“The general maintenance instructions and Manuals are available and they are supplied with the locomotives. The instructions have generally been followed. We have not accepted their contention; we are still pursuing with those people.”

1.25. In a note on the subject, subsequently furnished to the Committee, the Ministry of Railways have stated :

“The life of cylinder heads on WDM-4 locomotives as obtained at Mughalsarai shed was not due to defective maintenance practices. The firm had attributed the failure of cylinder heads due to defective pressure caps, which was based on the observation of one locomotive only by General Motors Service Engineer. However, even after changing all the pressure caps with new ones, no improvement was observed. It is, therefore, evident that maintenance practices as followed at Mughalsarai Shed had no bearing in this case. Correct maintenance practices pertaining to cylinder heads as advised by General Motors are being followed.”

1.26. It is seen from the Audit Report that in April, 1975, the Railway Administration identified thermal overload and inadequate cooling arrangements as prime contributors to the premature cracking of these cylinder heads and suggested to the Railway Board in April, 1975 that loads of mail and express trains would require reduction by one bogie and as a further means of reducing the thermal load, the fuel rack setting for WDM-4 should also be slightly reduced. The Committee enquired whether the Ministry of Railways had accepted the findings of the Railway Administration and asked whether the requirements regarding thermal load and the proper cooling arrangements had not been specified and if so, how these were ignored. The Committee also asked whether this problem had been studied by RDSO. In a note, the Ministry of Railways have stated :

“Cylinder head in a diesel engine, like any other component, can fail after a certain service life as a result of mechanical loading, or thermal loading or a combination of both. In the present case, failures have taken place after 3-4 years. The improvement in design is a continuous process. If the cylinder head design is improved to cater for increased cooling, the life could

be longer. General Motors have themselves modified their design, more than once, with this very objective.

It is accepted that high thermal load in case of WDM-4 loco and the limited cooling within the cylinder head design parameters have primarily contributed to a limited life of 3-4 years. RDSO investigations have confirmed that improvement in cooling within the cylinder head is likely to result in a higher service life. With this aim, they have developed a design of cylinder heads for this engine, with improved cooling.

In the specification for a diesel locomotive, the specifications for engine components cannot be laid down. Diesel Engine is a complex and sophisticated hardware, the design of which is developed for their specific equipment by specialist firms after a prolonged period of research and development. The details of design and specification for individual components are not divulged by the manufacturers, unless there is a collaboration.

To conserve foreign exchange, efforts are being made for indigenous manufacture of WDM-4 cylinder heads to General Motors design as well as to RDSO design at Chittaranjan Loco Works, Chittaranjan."

1.27. The Committee desired to know the total number of cylinder heads supplied by the U.S.A. firm which cracked within the warranty period and whether claims had been preferred in all such cases. In a note, the Ministry of Railways have stated :

"During the period 1963 to December 1974, a total of 4,364 cylinder heads were received from M/s. General Motors including 1184 fitted on 72 locos and two spare powerpacks. During 1975 and in 1976 so far, another 900 cylinder heads have been received from . . . . . U.S.A. Out of a total supply of 5,264 (4364+900) General Motors cylinder heads so far received, 62-cylinder heads have failed with the warranty period of 12 months. This has been taken up with the Manufacturers for replacement under the warranty clause. Therefore, 1.1 per cent General Motors cylinder heads failed within the warranty period during a span of 14 years. This position is considered to be satisfactory.

The claims for 62 cylinder heads were preferred against General Motors and out of these they have so far accepted the claim only for 14 numbers, for 19 numbers, the claim has

been rejected and for the remaining 29 numbers, the claim is still pending. For the rejected and outstanding claims, the matter is being pursued with M/s. General Motors.

Warranty claims for 62 cylinder heads were lodged with General Motors. The obligation for the warranty claims is for the replacement of specific items and not for the money value. However, at the present day cost of the cylinder heads being \$ 347.55, the value for outstanding claim of 48 cylinder heads will be approximately \$ 16682."

1.28. It has been stated by the Ministry of Railways that only 62 cylinder heads had failed within the warranty period of 12 months. However in the Audit Report, it had been stated that *inter alia* 25 per cent of the cylinder heads received from the U.S.A. firm in 1974 cracked within a year of service and that 620 cylinder heads were received in 1974. This implied that a little over 150 cylinder heads cracked within one year. When asked to reconcile this discrepancy, the Ministry of Railways have stated as under :

"Only 13 cylinder heads supplied by M/s. General Motors failed within one year's service in 1974. The observations that 25 per cent of cylinder heads received from General Motors in 1974 failed within a year of service is not correct. Apparently, the latter estimate also includes cylinder heads supplied by Hunt Spiller. It is regretted that Northern Railway did not supply correct position at the initial stage and this has been taken up with Northern Railway. 94 cylinder heads supplied by this firm had failed in 1974. The figure of 62 relates to General Motors' cylinder heads cracked within the warranty period since 1962 when WDM 4 locos were put into service. The factual position, however, is as indicated above."

1.29. It is further seen from the Audit Paragraph that in addition to the cylinder heads supplied by M/s. General Motors 96 cylinder heads were also imported from M/s. Hunt Spillers U.S.A. who obtained these from their sub-contractors in West Germany. All 96 cylinder heads gave inadequate life. Out of 96 cylinder heads supplied by this firm, 73 (76 per cent) cracked after giving service ranging between 36 days and 44 days only (the lowest and the highest kilometrage done being 14,040 to 1,60,290 against the warranty of 1,60,000 kms.) The Committee enquired whether the reasons for comparatively greater premature failures of cylinder heads supplied by M/s. Hunt Spillers had been investigated and whether those

were acceptable to the supplying firm. In a note, the Ministry of Railways have stated :

“96 cylinder heads were imported from M/s. Hunt Spillers USA, who obtained these from their sub-contractors in West Germany. All 96 cylinder heads gave inadequate life and claims have been lodged against the firm. The reasons for the failure of cylinder heads within warranty period were to be investigated by the Suppliers, namely, M/s. Hunt Spillers USA. These are apparently due to manufacturing defects. There has been protracted correspondence with the firm for the warranty replacement of these but there has been no satisfactory response so far. The matter is still being pursued.”

1.30. During evidence the Committee enquired whether the supplier firm was not bound by a warranty clause to replace the cracked cylinder heads. The Member Mechanical has stated in evidence :

“They were under warranty, strictly speaking, but so far they have not responded and they are not our regular suppliers. We have referred the matter to the ISM, Washington through whom these were procured. They are taking up the matter with the suppliers and are making the warranty claim. They have informed us that they are in correspondence with the firm and are making an effort to claim the warranty.”

1.31. The Committee enquired that when the procurement of cylinder heads had at all times been from M/s. General Motors how was it that this particular supply had to be obtained from M/s. Hunt Spillers. To this, the Member Mechanical has explained :

“The procurement from the German firm was because of the non-coverage of the indent by the ISM in time. Because of the delay, the stocks had become nil and the engines were getting laid up and the ISM was saying that cylinder heads from the original firm were not available and was asking us if we would have the others. Actually, the Railways were most reluctant to get them from this firm because they had never had any dealings with them earlier. The procurement aspect was being dealt with by DLW and they advised ISM that if cylinder heads were not available as replacement parts, a limited tender enquiry may be issued. All the time the DLW had been wanting to get them from M/s. General Motors because their cylinders heads were much better.”

1.32. Enquired if ISM had defaulted and were not quick enough to respond, the Member Mechanical has stated :

“There have been some delays on the part of the Railways also but the bulk of the delay has been on the part of ISM in covering the indent.”

1.33. The Committee asked whether the warranty clause in the agreement with M/s. Hunt Spillers was different from the warranty clause usually included in such contracts and if so, why such a warranty clause was accepted. In a note, the Ministry of Railways have stated :

“The warranty clause given by M/s. General Motors provides for the replacement of the part proved to be defective within a year after being placed in service or before being operated for 100,000 miles, whichever event shall first occur.

The warranty clause given by M/s. Hunt Spillers provides that they shall replace the parts proved to be defective within one year from the date of shipment or before being operated 100,000 miles, whichever event shall first occur.

The circumstances under which M/s. Hunt Spillers guarantee was accepted by ISM, who placed the order, will be furnished by External Affairs Ministry.”

1.34. In this context the Ministry of External Affairs have stated as under :

“Warranty clause stipulated in the contract is as per the standard terms and conditions that govern procurement of all stores by the Supply Wing. Similar clause was included in the past also for these stores supplied by other firms.”

1.35. The Committee have been given to understand that in accordance with the warranty clause, the cylinder heads, which cracked within one year, were required to be returned to the manufacturer at his factory, transportation charges pre-paid. As the cost of returning cylinder heads was high, the firm was advised to inspect them at Mughalsarai Shed. Clarifying the position the Member Mechanical has stated :

“The General Motors have been sending their engineers frequently or regularly whenever these claims are made and their representatives have been coming here and they have been either accepting the claims or refuting it. But the Hunt Spillers people did not come.”



1.36. In regard to the implications of the warranty clause in the agreement entered into by ISM Washington with M/s. Hunt Spillers the Chairman, Railway Board has stated during evidence :

“That clause said that whenever there was a defective thing, it should be sent back, and the suppliers should replace it. In our warranty clause—which we have here—we did not have such a thing. This is one of the features which has given rise to this particular trouble. We may have to change this warranty clause in future.”

1.37. The Committee desired to know how the firm M/s. Hunt Spillers was selected and whether the performance of its cylinder heads had been checked up. The Member Mechanical has stated :

“From here we were not in a position to check up. We only requested ISM to check up. ISM advised that the cylinder heads were available from M/s. Hunt Spillers and they found them to be attractive in price and delivery. They said that the firm had supplied the material to railways in other countries. DLW was asked to confirm whether the order was to be placed with them.”

The Chairman, Railway Board has added :

“It was an offer where prices were cheaper and the delivery was more attractive. Since it has been used in other railways, it is rather difficult to tell them not to purchase.”

1.38. When asked whether it was not possible to bypass ISM for these purchases, the Chairman, Railway Board has stated :

“There is nothing to prevent us. The only point is that this was not the first occasion when we were procuring cylinder heads. We had procured them a number of times prior to this purchase also, and ISM were procuring them at satisfactory prices. In fact, they were procuring them within a reasonable time also. This is the one occasion when this particular company came into the picture and gave all this trouble.”

1.39. In reply to a question as to how it was technically ensured that the goods purchased by ISM were operationally fit, the Additional Member Mechanical has stated :

“When we go to M/s. General Motors via ISM, we expect that when they offer anything to us, they supply according to their

specifications because they were going to buy them manufactured originally by General Motors or under their licence. In other words, the technology that was used in the manufacture of this thing was expected to conform to General Motors own standard, because it was the offshoot of the original manufacturer. When we asked ISM kindly to conform what we told them was that they should make sure that the things that they were going to purchase should be according to their specification and were of the material which was according to their specification. They have to see that the firm is a reasonable firm and the material has been used by other railways. I think ISM has not failed in this particular respect. In a particular cast, technological mistakes occur, you can get a batch which can be rejected. That is why we have a warranty clause. If the cylinder heads do not conform they must give us replacement."

1.40. When the Committee suggested that sufficient precautions were not taken by the Railways before buying cylinder heads from the West German firm, the Member Mechanical has stated : "We depended on the ISM... we have no cross-check record on what ISM had supplied". Referring to the observations made by the Additional Member Mechanical, the Committee pointed out that it appeared that "there was a kind of softness shown in regard to the entire transaction." To this the Additional Member Mechanical has replied :

"I was only trying to outline the situation where we have a warranty clause in all our contracts so as to make sure that the purchaser does not suffer. It is only for these contingencies that even when we go to reputed manufacturers, we find that their product is not upto the standard despite the entire background that we have and we have to have a warranty clause to make sure that we do not lose financially. I was only trying to bring that out. I am not holding any brief for M/s. Hunt Spillers I have no sympathy for them. But the fact is, in the manufacture of cylinder heads, as we have experienced ourselves in Chittaranjan, initially, there were technical defects and, therefore, failures had taken place."

1.41. The Committee called for information regarding the activities of M/s. Hunt Spillers whom cylinder heads had been procured by ISM. In a note, the Ministry of External Affairs have stated :

"Messrs. Hunt Spillers are a manufacturing division of Messrs. Power Products Incorporated, California California. A report dated 9th June, 1976, on the working of this firm as obtained

from Messrs. Dun & Bradstreet Incorporated is enclosed. Messrs. Dun & Bradstreet Incorporated report only on the financial status of the firm and not on the technical quality of the material supplied. Stores are accepted normally against purchases made by the Supply Wing on the strength of the warranty given by the firms for the stores. The total value of the order initially considered and placed on M/s. Hunt Spiller in consultation with the indenter was for £9,534.72 only. Apparently, in view of the smallness of the value of order the warranty provisions of the contract were considered enough safeguard.

However, the reports about the performance of the cylinder heads supplied by Messrs. Hunt Spiller to Santa Fe, Chicago, and National Railway, Mexico were called for on 9-1-74 from these railways after placement of order for future reference. No reply, however, was received from these railways.

Messrs. Hunt Spiller are listed as one of the suppliers in the Thomas Register and U.S. Industrial Directory."

1.42. In regard to the claim on M/s. Hunt Spiller for the cylinder heads which failed prematurely, the Ministry of Railways have, in a note, stated :

"India Supply Mission, Washington, vide their letter No. C-5789/72/IDA/1312 dated 17-11-76 to the Controller of Stores, Northern Railway, has advised that after persuasion the firm has agreed to replace 90 cylinder heads without further inspection and free of cost. For this purpose the Indenter will despatch all the defective cylinder heads to M/s. Hunt Spiller manufacturing in West Germany within three months after receipt of the Bank Guarantee by the Indenter from M/s. Hunt Spiller U.S.A. M/s. Hunt Spiller will furnish a Bank Guarantee valid for one year for the cost of 90 cylinder heads. M/s. Hunt Spiller have agreed that the cylinder heads will be shipped to India within 90 days of the receipt of defective cylinder heads in West Germany. The freight of the defective cylinder heads from India to West Germany and also that of replacement cylinder heads from West Germany to India will be borne by M/s. Hunt Spiller."

1.43. Details of the efforts made by the Ministry of Railways and the ISM to persuade the supplier firm to agree to the replacement of defective

cylinder heads are contained in a summary of the case, which is reproduced in Appendix I.

### **Indigenisation**

1.44. The Committee have been informed that the entire requirement of cylinder heads for WDM-4 locomotives was being imported. On being asked whether it would not be preferable to try indigenous manufacture of these items, the Chairman, Railway Board has stated :

“They have tried and have been successful in regard to WDM-2 cylinder heads. They have achieved a breakthrough there and the started manufacturing and supplying about 200 cylinder heads per month, but this one is still in the development stage.”

1.45. The Member Mechanical has added : “Our Research and Development scientists report that for quite some time to come we shall have to rely entirely upon foreign supply.”

1.46. The Committee asked whether any efforts had been made to develop a strong Research and Development Centre on diesel engines. The Member Mechanical stated :

“The question of indigenisation of the components of diesel locos has been receiving attention even at the highest level and we have been pursuing this very vigorously. Now it is a question of these hard core items. We have made efforts and frantic efforts all over the country, to find out any suppliers who are willing to take up the manufacture of these items and they have tried but they have not succeeded. We have even arranged an exhibition train of the diesel engine components to be displayed all over India to the entrepreneurs and industries to find out whether they will be willing to come forward and offer a project after seeing them. We are giving all the assistance and details but these items like cylinder head are very special sophisticated items requiring special steels. So, there has been a delay as I mentioned. As far as other types of locomotives are concerned, we have even succeeded in manufacturing the cylinder head successfully. It is only a question of numbers that we have to achieve. So, this item we have tried and we are continuing to try. In fact even for the cylinder heads I have now given this project to the Chittaranjan to again put their heads together and see whether they can manufacture this.”

1.47. Subsequently, in a note on the progress made in the manufacture of the cylinder heads, the Ministry of Railways have stated :

“The standardised locomotives being manufactured in the Indian Railways Production Units at Chittaranjan Locomotives Works, Chittaranjan and Diesel locomotives works, Varanasi, are as under :

Chittaranjan Loco Works . . . . .	WDS—4 B.G. Diesel shunters. ZDM—3 /ZDM-4 N.G. Diesel locomotives (fitted with MaK engine (of 700 HP)
Diesel Loco Works . . . . .	WDM—2 GB mainline diesel locomotives (2600 HP) WDS—6 Steel Plant diesel locos of 1380 HP. YDM—4 MG mainline Diesel locos of 1380 HP. (fitted with Alco engines).

For Chittaranjan built MaK engine cylinder heads have been fully indigenised and these have not been imported for the last six years.

Since Chittaranjan Loco Works has successfully established the manufacture of cylinder heads for MaK engine and have developed techniques and facilities such as induction melting furnace in the Iron Foundry, use of resin bonded mould sand for the manufacture of sophisticated and complicated thin walled castings, such as, cylinder heads and cylinder liners, during 1974-75 CLW was asked by the Ministry of Railways to develop the manufacture of ALCO cylinder heads for Diesel Loco Works. This has lately been successfully established and series production of these cylinder heads has been established for nearly over a year. About 150 cylinder head castings per month are now being supplied by CLW and it is proposed to step up this production to meet the full requirements. On account of inadequate machining capacity, part quantities of finished cylinder heads are being arranged through imports. It is, however, expected that within 1/2 years even this partial import will be stopped with the planned increase in production of castings by CLW and increased machining capacity at DLW/CLW.

*Development of WDM-4 cylinder heads :* After success with development of Alco cylinder heads, CLW were asked by the Ministry of Railways a few months ago to develop WDM-4 cylinder heads also. Pattern equipment is under manufacture and trial castings are expected to be made within the next two months. Thereafter, the same process of experimenting as in the case of development of Alco cylinder head, would be continued in order to establish proved methods and pattern equipment and techniques in series production of WDM-4 cylinder heads also. It is expected that within the course of

next 12—18 months, it may be possible to succeed in this venture.”

### Emergency Purchase and Air lifting of Cylinder Heads

1.48. The Committee called for details of the indents for cylinder heads placed by the Mechanical Department and the details of orders placed by ISM together with their scheduled time for delivery and actual receipt in India during the years 1971, 1972 and 1973. The information furnished by the Ministry of Railways is tabulated below :

Sl. No.	Date of placement of Indent by N. Rly.	Date of placement of purchase order by ISM	Quantity	Delivery period	Date of actual receipt in India.
1.	14-1-70	29-1-70	400	31-3-70 & extended to 31-5-70	Jan. 1971
2.	15-7-71	2-8-71	400	30-9-71	Jan—June, 1972
3.	8-10-71	28-4-72	200	30-11-72	April/73
4.	28-9-72	16-11-73	48*	Airlifted	Jan. 1974
		18-1-74	104	90 days	June, 1974
		22-1-74	48*	Airlifted	Feb., 1974
5.	20-8-73 (Placed by DLW)	22-1-74	420		Sept—Oct, 1974

\*These were covered on M/s. Hunt Spiller.

1.49. It has been stated in the Audit paragraph that in October, 1972, the Additional Mechanical Engineer repeated his request for procurement of 400 cylinder heads as there were only 200 cylinder heads in stock which was not considered sufficient to meet the estimated future requirements. In August, 1973, only 45 cylinder heads were in stock. According to the Railway Administration, this was due to India Supply Mission in Washington having not placed an order till November, 1973 as against the indent of September, 1972. The low stock position necessitated the Railway Administration making emergency purchase of cylinder heads. Consequently, it was decided in October, 1973 to air-lift 48 cylinder heads and another 48 cylinder heads in January, 1974. The Ministry of Railways in their following note, furnished at the instance of the Committee, have explained the circumstances which led to the emergency procurement and air-lifting of cylinder heads :

“DLW placed an indent for 554 items for WDM-4 locos on ISM/ Washington DC on 28-9-1972 which was received by ISM on

17-10-1972. One of these 554 items was cylinder heads to Part No. 8424450.

ISM issued limited tender enquiry and tender opening was scheduled for 1-12-1972 but extended to 29-12-1972, at the request of the trade as the number of items were large and firms were not able to prepare the quotations by 1st December. A part quotation of General Motors was received on February 1, 1973 and for the balance items quotation was received on February 23, 1973. After receiving the quotations from General Motors as well as from other firms upto February 28, 1973, the tenders were evaluated. During evaluation of tenders it was seen that for 35 items DLW had given different part numbers as compared to those given by M/s. General Motors. However, the part number given for cylinder heads by DLW and M/s. General Motors was same. A detailed reference was therefore made to Diesel Locomotive Works on 17th April, 1973 for confirming part numbers as quoted by the firm and for additional foreign exchange required as noticed from the offers received. This was received at Diesel Locomotive Works on 20-4-1973, which was the expiry date for offer of M/s. General Motors as advised by India Supply Mission, Washington in their communication. India Supply Mission, Washington took over 6 weeks to make reference to DLW in the matter and there was no margin for Diesel Locomotive Works to reply back before the expiry of General Motors offer who did not agree to extend the offer. India Supply Mission in the meantime covered 107 items on three firms and since for 36 items no offer was received, these were treated as cancelled. That left 402 items for coverage with General Motors Barring 35 items for which clarification was called for by India Supply Mission. the remaining items, which included cylinder heads also, could have been covered by India Supply Mission, on M/s. General Motors within the validity of their offer, but this was not done by India Supply Mission.

India Supply Mission's, query which was received on 20-4-1973 was replied on 19-5-1973 after ascertaining the details from Northern Railway by Diesel Locomotive Works. This was received by India Supply Mission on 5th June, 1973. Diesel Locomotive Works also advised India Supply Mission on 30-5-1973 that proportionate reduction in quantities of items indented may be made to keep the expenditure within the

allotted foreign exchange. India Supply Mission, however, referred back the case to Diesel Locomotive Works on 13-6-1973 for the revision of the quantities by Diesel Locomotive Works. This was not necessary. Northern Railway, however, replied back on 12-7-1973 which was received by India Supply Mission on 30-7-1973 and tenders were re-invited by India Supply Mission on 27-8-1973. Had the necessary alternation been done by India Supply Mission as advised vide Diesel Locomotive Work's communication of 20-5-1973 the tenders could have been floated atleast about 2 months earlier. India Supply Mission felt that this could be done only by the indentor since he knew his requirements. In view of Diesel Locomotive Works' communication of 30-5-1973 to make proportionate reduction in the quantities, the need for the alteration being done by the indentor only are not obvious.

Fresh tenders were reopened on 20-9-1973 and evaluated by 4-10-1973 in only 14 days. The cheaper offer was from M/s. Hunt Spiller at a price of Dollar 198.64. Therefore, India Supply Mission made a reference on 4-10-1973 to Diesel Locomotive Works who cabled India Supply Mission as to why they had not placed orders on M/s. General Motors and were asked to immediately cover atleast 48 numbers on M/s. General Motors for air-lifting and in the meantime India Supply Mission was asked to advise firm's name for examination of the offer detailed in their cable as per DLW's cable of 11-10-1973.

Due to the delay that had already taken place and since locomotives were expected to be held up for this component, it was agreed to air-lift 48 numbers cylinder heads of M/s. Hunt Spiller since their offer was ex-stock and M/s. General Motors had quoted a delivery schedule of 210 days. Subsequently another 48 numbers of cylinder heads of M/s. Hunt Spiller were also airlifted to meet the urgent requirement and to obviate locomotives being stabled on this account."

1.50. The version of ISM in regard to procurement and air-lifting of the cylinder heads indented by DLW on 28 September, 1972 is contained in the note furnished by the Ministry of External Affairs. This note is reproduced in Appendix II.

1.51. A chronological summary of events leading to air-lifting of cylinder heads, as furnished by the Ministry of Railways is given in Appendix III.



1.52. The Audit para mentions that 72 WDM-4 locomotives imported from U.S.A. were commissioned during August 1962 to June 1963. These locomotives were fitted with cylinder heads, an important component, supplied by the same firm which delivered the locomotives in 1974, 96 cylinder heads were procured from a West German firm on an emergency basis. Although the normal service life of these cylinder heads had not been specified by the manufacturer/supplier, the Railway Administration had assessed the average service life of a cylinder head as three years on the basis of their experience of many years of maintenance of WDM-4 locomotives. From the figures given in the Audit paragraph it is, however, seen that the average service life of 42.5 per cent of the cylinder heads received in 1971 and of 66.5 per cent received in 1972 from the firm in U.S.A. was less than three years. The Committee also note that out of 1499 cylinder heads received from the USA firm between 1971 and 1974, as many as 708 cylinder heads, i.e., about 47 per cent of the total supply, cracked within three years. Out of these 708 heads, 39 heads cracked within one year, 378 heads cracked within one to two years and 291 heads cracked within two to three years. That a large number of cylinder heads cracked prematurely much before their expected service life is a matter which has caused great concern to the Committee.

1.53. According to the supplier, the higher incidence of failure of cylinder heads on Indian Railways was attributable to the adoption of defective maintenance practices. The Ministry of Railways, however, maintain that correct maintenance practices pertaining to cylinder heads as advised by the firm were being followed and that the contention of the firm in this behalf had not been accepted. It has also been stated that this aspect of the matter was being pursued with the firm. The Committee would like to be apprised of the outcome of these discussions.

1.54. Explaining the reasons for the inadequate life of cylinder heads supplied by the USA firm, the Committee have been informed during evidence that the design parameters of the WDM-4 locomotives had a direct impact on the life of the cylinder head. Besides, the operating conditions had also a very vital role in determining the life of diesel loco components including cylinder heads. It is stated that on some WDM-4 locos, there were cases of cylinder heads cracking in less than 3 years because of such locos being deployed on heavy duty services. It has been admitted by the representative of the Ministry of Railways during evidence that the utilisation of WDM-4 locomotives has gradually increased. Earlier the engines were put to much lesser loads than they were put to after 1968. The number of diesel locos on mail and express trains increased from nil in 1962 to 2 in 1966 and to 16 in November 1973. During 1973 the utilisation of mail and express locos was 761 kms. per day per engine. The speed of Howrah-Kalka Mail which was 90 kms. per hour booked and 100 kms. per hour

maximum was raised to 100 kms. per hour booked and 110 kms. per hour maximum in November 1971. Similarly, the Rajdhani Express train was introduced using the same locomotive. During the earlier years of usage of WDM-4 locos, these were mostly utilised for haulage of loaded coal wagons from Mughalsarai to up country and the load used to be 2000 to 2250 tonnes. The same load has gradually increased and is now about 3600 tonnes. The work done by the same loco and same cylinder is much higher than in the earlier years. On some locos, there were cases of cylinder heads cracking in less than 3 years because of such locos being deployed on heavy duty services. Keeping in view the increasing load that is being put on diesel locomotives and the incidence of cracking of cylinder heads, it is imperative that immediate remedial measures should be thought of so as to arrest the premature failing of the cylinder heads in diesel locomotives. The Committee would like to know the details of the steps that the Ministry of Railways propose to take in this direction.

1.55. The Committee observe that in April, 1975, the Northern Railway Administration identified thermal overload and inadequate cooling arrangements as prime contributors to the premature cracking of these cylinder heads and had suggested to the Railway Board that loads of mail and express trains would require reduction by one bogie and as a further means of reducing the thermal load, the fuel rack setting for WDM-4 locomotive should also be slightly reduced. The Committee desire that the precise action taken in pursuance of these suggestions by the Railway Administration should be intimated to them.

1.56. The Committee have been informed that out of a total of 5,264 cylinder heads supplied by the U.S.A. firm since 1963, 62 cylinder heads had failed within the warranty period of 12 months. The claims for 62 cylinder heads were preferred but the firm accepted claim only for 14 numbers, the claim had been rejected for 19 numbers and the claim was still pending for the remaining 29 numbers. The value of the outstanding claim of 48 cylinder heads is approximately \$ 16,682. The Committee desire that the matter may be vigorously pursued with the firm and the final outcome intimated to them.

1.57. The Committee find that in addition to the cylinder heads supplied by General Motors, 96 cylinder heads had been imported from another firm viz. M/s. Hunt Spiller, these cylinder heads gave way prematurely earlier than the expected life. Out of the 96 cylinder heads supplied by this firm 73 (76 per cent) cracked after giving service ranging between 36 days and 44 days only (the lowest and the highest kilometrage done being 14,040 to 1,60,290 against the warranty of 1,60,000 kilometres). The comparatively greater premature failures of

the cylinder heads are according to the Ministry of Railways due to manufacturing defects. However it is with great difficulty that India Supply Mission, Washington has been able to persuade the firm to agree to replace 90 cylinder heads without further inspection and free of cost. The Committee would like to know whether all these 90 cylinder heads have since been replaced and are working satisfactorily.

1.58. From the information made available to the Committee it is seen that there has been protracted correspondence between ISM Washington/Railway Administration and M/s. Hunt Spiller in regard to replacements of the defective cylinder heads. It would appear that the main point of contention has been the interpretation of the warranty clause, which according to the Chairman, Railway Board was different from the warranty clause normally included in such contracts. The Chairman, Railway Board stated in evidence: "That (warranty) clause said that wherever there was a defective thing, it should be sent back and the suppliers should replace it. In our warranty clause—which we have here we do not have such thing . . . we may have to change this warranty clause in future". Even though the Ministry of External Affairs have stated that the "warranty clause stipulated in the contract is as per the standards terms and conditions that govern procurements of all stores by the Supply Wing", the Committee nevertheless would like that the matter should be reviewed in depth in the context of the difficulties that have arisen in this particular case in order to obviate recurrence of such case in future. The action taken in this behalf may be intimated to the Committee.

1.59. The Committee would also like the matter to be investigated further as to how far it was proper and technically justified for ISM Washington to place the order for supply of cylinder heads on M/s. Hunt Spiller about whose technical capability of manufacturing the requisite components they had no knowledge. It has been stated that the reports about the performance of the cylinder heads supplied by M/s. Hunt Spiller, to Santa Fe, Chicago and National Railways, Mexico were called for on 9 January 1974, by ISM Washington, but no reply was received from them.

1.60. The Committee have been informed that the entire requirement of cylinder heads for WDM-4 locomotives was being imported as the indigenous manufacture of these hard core items had not progressed much. Although success is stated to have been achieved in the development of ALCO cylinder heads at the Chittaranjan Locomotive Works, a break-through in perfecting the technique of producing WDM-4 cylinder heads has yet to be made. According to the information furnished by the

Ministry of Railways, it is expected that during the course of next 12—18 months, it may be possible for Chittaranjan Locomotive Works to produce cylinder heads for WDM-4 locomotives. However, during the course of evidence the Committee were informed that the Chittaranjan Locomotive Works have been entrusted with the development of the work of this cylinder heads only recently. Knowing full well the urgency of the requirements, the Committee feel that this work should have been given a very high priority than assigned earlier. They would like to know the results of the efforts made by Chittaranjan Locomotive Works in this direction.

1.61. Yet another important point highlighted in the Audit Paragraph relates to delay in indenting for the cylinder heads leading to the emergency procurement of cylinder heads which had to be airlifted from West Germany at a cost of Rs. 2.25 lakhs. According to the Railway Board the emergency purchases of cylinder heads were necessitated because of the low stock position and this had been brought about as the India Supply Mission, Washington did not place an order till November, 1973 against an indent placed by DLW in September, 1972. The ISM Washington have, however, pleaded that the delay in placing the order occurred because several back references had to be made to the indenter for confirmation of prices, reduction of quantities and allotment of additional foreign exchange.

1.62 Prima facie it appears that the indent placed by Diesel Locomotives Works on 28 September 1972 was processed in a haphazard fashion alongwith the indents for 554 items for the WDM-4 locomotives. It stands to reason that if cylinder heads were required so urgently, the indent for them should have been delinked from the other indents and the ISM should have been told about the urgency. The references and back references made by the Railway Administration and the ISM, Washington resulted in delay which ultimately proved very costly. It is also seen that ISM, Washington made two references to the Railway Administration asking for reduction in the quantities so as to cover the purchases within the available foreign exchange. The Ministry of Railways have stated that the proportionate reduction in the quantities could have been made by ISM, Washington without any reference to them. The Committee regret that due to lack of proper coordination between the ISM Washington and the Ministry of Railways, the supplies of cylinder heads were inordinately delayed. An avoidable expenditure of Rs. 2.20 lakhs had, therefore, to be incurred for emergency airlift of cylinder heads.

1.63. Keeping in view the large number of avoidable lapses that occurred in this case, the Committee desire that the whole case may be

reviewed so as to rationalise and streamline the procedure regarding purchases through India Supply Mission, Washington by the indenting departments. The Committee would like to be apprised within six months of the presentation of this Report of the conclusive action taken in this regard.

### **Diesel Locomotive Works—Rejection of Imported Cylinder Head Castings**

#### *Audit Paragraph*

1.64. The Diesel Locomotive Works Administration placed three purchase orders (two in May 1970 and one in July 1971) valued at \$ 5.19 lakhs f.a.s., New York, on a firm in U.S.A., for supply of diesel locomotive components including 3200 cylinder head castings. The supplies were received between May and October 1971 and in September 1972. Out of these, 540 cylinder heads were rejected during machining operation due to various manufacturing defects like valve seat insert landing width not in accordance with the specifications, defective sleeve rolling stud holes and defective nozzle cooling sleeve holes. The Administration preferred warranty claims on the suppliers for these 540 cylinder head castings in 5 instalments between March 1972 and December 1973. Subsequently the claim for 102 cylinder heads was withdrawn on the advice of the firm that the casting variations were within the permissible tolerances and that these cylinder heads could be used on locomotives without any adverse effect on their life and functioning. The firm accepted warranty claim only for 107 cylinder head castings. Out of the balance 331 cylinder heads, the firm did not accept the warranty claim for 312 cylinder heads on the ground that the defects had arisen at the time of machining due to human error and also because the castings had not been properly adjusted in the fixtures to suit the casting variations. Although the contention of the firm was not acceptable to the Administration, the former finally rejected the warranty claims in August 1974 for all these 312 cylinder heads. The Administration did not follow up the claim for 19 cylinder heads till June 1975 due to oversight.

1.65. The representative of the firm suggested in November 1973 that it would be possible to accept the claim for 325 cylinder heads if the Diesel Locomotive Works Administration placed a further order for 1000 cylinder heads but this was not confirmed in writing. The Administration placed a fresh order on the same firm in April 1974 for supply of 1120 cylinder heads at a cost of \$ 2.36 lakhs f.a.s., New York, as there was no other supplier for this item and indigenous capacity is still (December 1975) to be developed; but the firm expressed its unwillingness to accept

the order until the claim for rejected castings was withdrawn. The Administration, however, persuaded the firm not to link the issue relating to the warranty claim with fresh order for 1120 cylinder heads. The firm accepted this order in April 1975. The cost of 331 cylinder heads, which are still to be replaced by the firm, works out to Rs. 5.87 lakhs with a foreign exchange content of Rs. 4.35 lakhs.

1.66. The Diesel Locomotive Works Administration stated (December 1975) that in a meeting held in October 1975 the representative of the firm gave an assurance to replace 200 cylinder head castings free of cost leaving a balance of 131 cylinder head castings (valued at Rs. 2.32 lakhs with foreign exchange content of Rs. 1.72 lakhs). The Railway Board further stated (January 1976) that the firm had advised the Diesel Locomotive Works Administration of the machining technique for reclaiming these cylinder heads. As a result, 25 cylinder heads castings out of 131 had since been reclaimed after machining and were in pipe line for being fitted; the remaining 106 cylinder heads are expected likewise to be reclaimed.

[Paragraph 11 of the Report of Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways)]

1.67. According to the Audit para three orders for supply of 3200 cylinder head castings were placed by Diesel Locomotive Works Administration during May 1970 and July 1971 on a New-York firm. The break-up of the 3200 cylinder head castings ordered, supplied and rejected is given below :

Order No.	Quantity Ordered (Number)	Quantity Supplied	Period during which supplies were received	Quantity rejected Number	Date
51/02/090	800	800	August—	135	17-3-72
12-5-70			October, 1971.		
51/02/093	1440	1440	May—August,	165	3-7-72
19-5-70			1971		
51/02/120	960	960	September,	188	6-4-72
28-7-71			1972	33	30-8-73
				17	11-12-73
	3200	3200		540	

1.68. Audit have also mentioned that in a meeting held in October 1975 the firm agreed to replace 200 cylinder head castings free of cost leaving a balance of 131 cylinder head castings. Giving details of the

2) LSS'77-3.

warranty claims preferred by the Ministry of Railways, the Member Mechanical stated during evidence :

“.....of the total number of 3,200 cylinder heads under discussion, the warranty claims were preferred against 540. They were under three different headings. Defects which were noticed regarding their manufacture; the machining procedure, the design details and the number rejected for the manufacturing defects come to a total of 307. After protracted correspondence and discussion, these 307 have all been replaced..... That leaves a balance of 233 out of which for 102 we required the design details. The defect was referring to the valve seat insert landing width, for which adequate material apparently was not available for the purpose of machining; this was clarified by the firm and after the design details supplied to us, these 102 were machined accordingly. This was done three years ago. They have been in use since then. And that left us with 131 cylinder head castings for which we required details for the machining procedure.”

He has added :

“One of the defects that we observed was shift in the core and while using the fixture straightaway, it was not possible to get sufficient metal for the purpose of machining. That was based on the process sheets that were given to us initially as to how the casting had to be machined. After the clarification was made available regarding the set-up shift, it was possible to do the machining of 131 cylinder heads.”

1.69. Giving the latest position of the remaining 131 cylinder head castings the Chairman, Railway Board has informed the Committee during evidence that these have also been utilised by the Railway Administration.

1.70. The Audit paragraph states that out of 540 cylinder head castings for which warranty claims were preferred, the supplier firm accepted warranty claim only for 107 cylinder head castings. The Committee asked what were the defects in these 107 cylinder heads. The Member Mechanical has explained :

“The outright rejections under the warranty were because of casting defects of various types like hair line cracks, failure in hydraulic pressure tests, blow holes in the castings. Outright rejections were made and the warranty claims for these had been accepted.”

1.71. The Committee desired to know what was the final finding of the Railway Administration as to the defects in the cylinder heads, i.e., whether there were manufacturing defects or there was non-compliance with the manufacturing specification as claimed by the Diesel Locomotive Works or there was improper machining and improper adjustment of the castings as claimed by the supplier. In a note, the Ministry of Railway have stated :

“The rejections were due to core shift in the castings, beyond the normal permissible limits which is tantamount to a manufacturing defect. The machining was done as per standard settings on the fixture as there was no provision in the process sheet recommended by the collaborator for any set-up adjustment during the machining cycle. It is, however, true that if a set-up shift had been organised at D.L.W. on the basis of the variation observed on the initial castings machined, the reclamation would have been easier. This was not introduced earlier so as not to jeopardize the warranty claim.”

1.72. In regard to the 131 cylinder heads which were rejected but subsequently reclaimed after the supplier had explained the machining process, the Committee enquired whether the machining technique as explained by the supplier had worked satisfactorily and whether the reclaimed cylinder heads performed well. The Committee also desired to know the period and kilometres over which the performance of these reclaimed cylinder heads had been observed. In a note, the Ministry of Railway have stated :

“The reclamation of 131 Nos. of cylinder heads was completed on 1st July, 1976. The technique recommended by the firm called for set-up adjustment on the basis of a defect noticed on already machined cylinder heads. D.L.W. has now adopted a method for assessing extent of core shift if any, prior to machining, thus enabling an adjustment to be done in the initial machining operations. This is therefore an additional precaution adopted by D.L.W. to eliminate/reduce rejections to the maximum extent.

Of the 131 Nos. reclaimed heads a total of 115 reclaimed cylinder heads viz. 87 Nos. on engines produced at D.L.W. and 28 Nos. as spares to the railways have so far been utilised since March 1976 upto date. The balance 16 cylinder heads will be fitted by 30th August, 1976.

No adverse reports have so far been received regarding the performance of these reclaimed heads.



The first lot of reclaimed heads were fitted on locomotives turned out during March, 1976. The reclaimed heads fitted so far have been in service for periods varying upto 4 months. During testing at D.L.W. no abnormality was observed. Record of Kilometrage earned by these heads are not readily available."

1.73. It is seen from the Audit paragraph that the warranty claim for 102 cylinder heads was withdrawn by the Railway Administration on the advice of the firm that the casting variations were within the permissible tolerance and that these cylinder heads could be used on locomotives without any adverse effect on their life and functioning. The Committee asked whether the Railway Administration had maintained any record of cast numbers of these 102 cylinder heads for which the claim was withdrawn. The Committee also asked whether these cylinder heads had been used and were giving trouble-free service. In a note, the Ministry of Railways have stated :

"Separate records for these 102 Nos. cylinder heads have not been maintained. However we are now maintaining systematic records of cylinder heads fitted out of the reclaimed lots of 131 Nos. with a view to keep a watch over their performance.

These heads were used at the time the claim was withdrawn in 1973. No adverse reports have been received for any of these cylinder heads.

No records are maintained by D.L.W. regarding the kilometrage earned by these heads. They have however been in service for about 3 years."

1.74. The Audit Para points out that in November, 1973 a representative of the firm had suggested that it would be possible to accept the claim for 325 cylinder heads if the D.L.W. Administration placed a further order for 1000 cylinder heads but this was not confirmed in writing. When the Committee drew attention to this observation in the Audit para, the Member Mechanical stated "we did not accept it". He further stated that this was only a verbal offer which had been made in the course of discussion which is on record; but there were no minutes of the discussion. Clarifying the position the Chairman, Railway Board has stated :

"The record is in this matter that a cable was sent to the firm on 30-11-1973 to confirm what they had offered at the discussion on November 2, 1973. A cable was sent to the firm to confirm that they will replace. There was no reply. Then they were again reminded by another cable on 15-1-1974. So,

these two reminders were sent to them but they did not want to put it down in writing."

1.75. According to the Audit Paragraph on the Diesel Locomotive Works Administration placed a fresh order on the same firm in April, 1974 for supply of 1120 cylinder heads as there was no other supplier for the item and indigenous capacity was still to be developed. The Committee desired to know on what basis the order for 1120 cylinder heads had been placed and whether it was based on actual demand. The Member Mechanical has stated :

"Our monthly requirement of cylinder heads is about 160. Based on that, it comes to nearly 1920 per annum. This is the production requirement. We must have some quantity for in-process requirement. And after assessment, the placement of order of 1120 was actually made. This was the normal requirement of the production and, for the in-process requirement. It was a part of the requirement and so indents for the cylinder heads were placed by us every year. Each year we have to place the indents for the production of these cylinders for the subsequent year."

1.76. When asked about the orders placed between August, 1971 and March, 1974, the witness has stated :

"In 1970 the order was placed for 2240 cylinder heads. In 1971 the order was for 1280. In 1972 the order was for 870 and in 1973 the order was for 900 cylinder heads. The order placed in 1974 was for 1120 and in 1975, taking into account the indigenous production, the order that has been placed is for 420 cylinder heads."

He has added :

"Our annual requirements are there and we had not only to place orders in 1974, but we had to place orders in 1975 and 1976 also. That is a continuous procedure for placing the order for production requirements."

1.77. Explaining the reasons for fluctuations in the orders for cylinder heads placed each year, the Member Mechanical has stated :

"When the orders are placed, the same are based on a projected out-turn which is envisaged at that time but in the course of the year according to the resources that are available the

manufacturing programme is altered and, as such there are certain fluctuations.”

1.78. The Committee asked whether the supplies against the April, 1974 order for 1120 cylinder head castings had been completed by the firm and whether the supplies conformed to the specifications. In a note, the Ministry of Railways have stated :

“The firm has completed supplies of 1120 Nos. against order No. 51/02/190 of 12-4-74 during the period December 1975 to March 1976. The heads conform to specification except the rejections for which warranty claims have been lodged.

The machining of some of these cylinders is still under process. So far no heads have been rejected for defects arising out of core shift.”

1.79. The Committee enquired about the rejections in the supplies received against the April, 1974 order and asked whether warranty claims had been preferred. The Ministry of Railways, in a note, have stated :

“Yes, 22 numbers have been rejected so far and for which warranty claim have been lodged in July, 1976. 18 Nos. were rejected for failure in hydraulic test, 2 Nos. for inadequate material on liner seat and 2 Nos. for unspecified opening in the casting. The supplier's acceptance is awaited.”

1.80. The Committee desired to know the present position of replacement of 107 rejected cylinder head castings for which warranty claim was accepted by the firm and another 200 cylinder head castings for which an assurance had been given by the firm for free replacement. The Ministry of Railways have informed that “all the replacements i.e., 107 Nos. plus 200 Nos. have already been made by the supplier”.

1.81. The Committee asked whether any efforts were made to locate indigenous sources for the supply of this component. The Member Mechanical has explained during evidence :

“This is one of the main items required in large quantities. I have made a lot of efforts to indigenise this item. The order placed in 1975 was for 1420 numbers. The balance are going to be produced by Chittaranjan Workshop.”

1.82. On being asked as to when the entire requirement of cylinder head castings by the Railways would be produced in the Railway Workshops, the Member Mechanical has stated :

**"I shall be most obliged if anybody in the country can say that he would produce this. So far, nobody has come forward. We are producing at Chittaranjan. We have produced successfully about 1800 so far. We started only in a developmental way. At Chittaranjan, the rejections were heavy but it has come down now. I am hopeful that in the course of the next few months, we shall be achieving normal production."**

1.83. In regard to rejections at Chittaranjan Foundry, the Member Mechanical has stated that when they had started the rejections were over 60 per cent and now it had come to about 40 per cent. On being asked whether the reasons for rejections had been identified, the witness has stated :

**"The core was getting shifted ; and the metal porosity was not coming to the required standard. It is an alloy cast iron ; therefore there is a special problem. But we are identifying the problem. That is why we have been able to achieve better results."**

1.84. As to the measures taken for reducing the rejection rate, the Member Mechanical has stated :

**"We are very conscious of this special project ; and we are going all out ; and have put our best people on the job. I am very hopeful that we shall have a break-through."**

1.85. Asked about the efforts made to help other foundries for producing this particular item, the Member Mechanical has stated :

**"We have tried quite a lot. We contracted 25 foundries. It came down to 2 items. Whatever was supplied, even by these 2 firms, was mostly rejected. Again I have had now displayed this item for anybody, who can do it, to come forward. Lately 1 or 2 other people have shown interest. But we have yet to see because it is a very intricate casting. It is not that anybody can do it."**

1.86. Asked in what way the Railways were prepared to assist other manufacturers to enable them to produce this item, the Member Mechanical has further stated :

**"We provide technical details and have discussions with them. Whatever help they want, they can come and discuss in the DLW or CLW. In that way we are helping them."**

1.87. In a note subsequently furnished at the instance of the Committee the Ministry of Railways have stated :

“As regards the development of Cylinder Heads, Ministry of Railways have been making continuous efforts during the past few years. As against the annual requirement of railways to the extent of 1600 number of cylinder heads for production and 2000 number for maintenance, CLW has now achieved capability of casting 200 heads per month i.e., about 2400 heads per annum. This however includes rejections. CLW is striving to augment the production to good casting upto 350 per month and minimising rejections. The castings are being machined at DLW who are also being geared upto machines all the castings done by CLW. Besides some entrepreneurs have been located in the Public Sector. Development orders have also been placed on these firms. The name of the firms with the development order levels are as indicated below :

1. M/s New Standard Engineering Company Limited, Bombay	100 Nos.
2. M/s. New Precision (India) Pvt. Ltd., Dewas.	100 Nos.
3. M/s. General Motor Industries, Ajmer.	32 Nos.

1.88. The Committee desired to be furnished with a note on the steps taken by the Ministry of Railways for achieving self-reliance in the matter of components and spares for locomotives. The note furnished by the Ministry of Railways in this behalf is reproduced below :

“In order to achieve self-reliance in the matter of indigenisation of components and spares for locomotives a number of steps have been taken by the Ministry of Railways. The major steps are as indicated below :

- (a) The prospective manufacturers are given a commitment to the effect that an order for 100 per cent requirements for the first year, 80 per cent for the second year and 60 per cent for the third year will be placed on him provided the prices are reasonable.
- (b) Clauses relating to levy of liquidated damages extension of delivery period, price escalation for development orders have also been liberalised.
- (c) Assistance in issue of import licence for raw materials not available in the country is provided whenever necessary.

- (d) To make an economic batch for production, requirements upto 3 years are clubbed.

The Indian Railways have been making persistent efforts to achieve maximum possible import substitution and self sufficiency so far as railway equipment is concerned. They are the biggest single purchaser of a very wide range of items of not only specialised Railway equipment but also items of general use. In view of the tight ways and means position of aid/credit from foreign countries and the Prime Minister's directive to become self-reliant as far as possible, this aspect has assumed a new dimension.

With a view to achieve indigenisation within the shortest possible time development cells have been set up in the Ministry of Railways and on the Railways/production units for developing indigenously items that are imported. These cells function in close co-ordination not only with each other but also with DGTD and other Ministries of the Government like Ministry of Industry and Civil Supplies, Ministry of Steel etc. As a result of the efforts made, the proportion of imported stores to the total railway purchases has come down from 30 per cent (1951-52) to 11.9 per cent in 1974-75 and 8.7 per cent in 1975-76, despite the fact that in pursuance of the modernisation plan, the Railways have been adopting modern means of transport such as diesel and electric traction in conjunction with sophisticated methods of signalling, track maintenance etc. The manufacture of Diesel Locomotive was taken up in the year 1963 in Varanasi. The first batch of locomotive had an import content of 98 per cent. This has been progressively reduced to 10.1 per cent in 1974-75. The Electric Locomotive was first manufactured at Chittaranjan in 1964 with 53 per cent import content. This has come down to 15.8 per cent in 1974-75. Similarly for diesel hydraulic shunters the first batch of locos turned out in 1967 had an import content of 71 per cent while this has been reduced to 21 per cent in 1974-75.

In view of the Prime Minister's directive to become self-reliant as quickly as possible Ministry of Railways have launched a drive to give indigenisation of fresh impetus. Meetings are being held with the General Managers of the Production Units every

alternate month and the results so far achieved have surpassed all expectations. The progress in indigenisation since the drive was initiated a year ago has been as under :—

Name of production Unit	No. of items	Approximate saving in foreign exchange
1. D.L.W.	48	4.23
2. C.L.W.	..	..
3. Electric Loco	35	0.65
4. Diesel Hydraulic Locos	152	0.82
5. I.C.F.	2	0.20
	237 items	Rs. 5.90 crores

The Ministry of Railways recently exhibited the items being imported and those in short supply in two mobile vans so that the small scale industrialists or small entrepreneurs can see for themselves these items and then select the items which they can manufacture in their workshops. The items exhibited number about 500 and have a value of over Rs. 9 lakhs. These vans have just completed their tour all over the country lasting about 7 months."

1.89. The Committee have been informed during evidence that D.L.W. had entered into an agreement with M/s. Overseas Diesel Corporation, New York for supplying components of locomotives on rate contract. The cylinder head castings are therefore being procured from the firm on the basis of this rate contract. The price of cylinder head casting in 1971 was 160 dollars per piece whereas it is 210 dollars per piece now. It is further stated that there is a base price and then there are escalation clauses according to which the prices are determined from time to time.

1.90. The Committee asked since Railways were depending on one source for this essential supply, why no efforts were made to locate other sources in other countries. The Member Mechanical has stated :

"ALCO drawings are there for these cylinder heads. These are not available to anybody else. These have been given to us. The monopoly to manufacture is with them. That is why we have been seriously trying for the last one year to take up its manufacture indigenously."

1.91. In reply to a question whether efforts were made to locate alternative sources of this supply in some socialist countries, the Member

**Mechanical has stated : "As per the original agreement, we cannot try these East European countries". He has added :**

**"The ALCO had separate collaboration with these countries and as per our collaboration, the drawings could not be used by others."**

1.92. The Committee called for details of the relevant agreement and desired to know why such a restrictive clause in the agreement had been accepted. In a note the Ministry of Railways have stated :

**"The Collaboration Agreement of 1962 for the manufacture of Diesel Engines n D.L.W. between the Government of India and ALCO Products Inc. USA (now called White Industrial Power Inc.) along with subsequent negotiation imposed restriction on the Government of India not to release designs, drawings, specifications and other technical data to sub-group 'A' countries. The following are sub-group 'A' countries as advised by ALCO :**

**Albania, Bulgaria, China (including Manchuria, but excluding Taiwan and all territories or areas dominated or controlled by Communist China).**

**Communist controlled area of Vietnam, Cuba, Czechoslovakia, East Germany (Soviet Zone of Germany and the Soviet Setor of Berlin), Estonia, Hungarv, Latvia, Lithuania, North Korea, Outer Mangolia, Poland (including Danzing), Rumania, Union of Soviet Socialist Republic.**

The relevant paragraph No. 21 of the original agreement is extracted in Annexure 'A' and the copy of subsequent letter dated September 20, 1963 from Vice-President, International ALCO Products Inc. to the General Manager D.L.W. furnishes above details.

From the records available it has not been possible to locate any reasons as to why Article 21 of the Agreement was accepted."

1.93. Extracts from the letter dated September 20, 1963 from Vice-President, International ALCO Products Inc. to the General Manager, D.L.W. are reproduced below :

**"Referring to the Agreement of 1962 between the Government of India and our Company (ALCO) regarding technical association for the manufacture of diesel locomotives and diesel**



engines, respectively, you have informed us that you desire to procure materials and components for the manufacture of diesel locomotives and diesel engines under the Agreements from various suppliers and manufacturers in India which are not nationals of that country or of the United States of America, and wish to furnish them with copies of such of the designs, drawings, specifications and other technical data (hereinafter collectively called "data") which we have furnished to you as may be necessary for such procurement, and you have requested our consent thereto.

Until further notice we hereby consent to your furnishing the necessary data to such of the suppliers and manufacturers referred to above as are not nationals of any of the countries listed below as Sub group A countries, subject to the following qualifications and conditions :

1. Data shall not be delivered to any firm or association in which any of the members is a national of Sub group 'A' country or to any corporation in which any of the officers, directors or principal stockholders is such a national.
2. Data shall not be delivered to any supplier or manufacturer which is a licensee or agent of a Sub group A country or a national thereof.
3. Data shall not be delivered to any supplier or manufacturer except upon your receipt of written assurance that such supplier or manufacturer will comply with the provisions of Article 21 of the Agreements and will in no event deliver any of the data available for inspection by such a national."

**1.94. The Committee find that out of 3,200 cylinder head castings received between May, 1971 and September, 1972 by the Diesel Locomotives Works from a firm in USA, 540 cylinder heads were rejected during machining operations due to various manufacturing defects. Warranty claims on the suppliers for these 540 cylinder head castings were preferred between March, 1972 and December, 1973. Out of the rejected cylinder heads, the claim for 102 cylinder heads was withdrawn on the advice of the supplier firm that the casting variations were within the permissible tolerances and that these cylinder heads could be used on locomotives without any adverse effect on their life and functioning. However in the absence of any separate records having been maintained for these 102 cylinder heads it is difficult to judge whether these cylinder heads had given trouble-free service as per warranty clause. All that the Committee**

have been told is that "they have been in service for three years". The Committee would like to be informed as to how the Railway Administration satisfied themselves that these cylinder heads which were initially rejected by them were later on considered fit for use on the locomotives.

1.95. The Committee further observe that besides the above 102 cylinder heads, 131 cylinder heads were rejected but subsequently reclaimed after the supplier had explained the machining process. The balance of 307 rejected cylinder heads were got replaced by the firm after a great deal of correspondence and discussion. It is seen that although the warranty claims for replacement of rejected cylinder heads were preferred by the DLW Administration between March, 1972 and December, 1973, the firm gave an assurance to replace 200 cylinder heads only in a meeting held in October, 1975. The excessively long time taken by the supplier firm to honour the warranty claims of the DLW Administration lead the Committee to conclude that either the warranty clause was worded in ambiguous terms or the supplier firm was trying to take undue advantage of their monopolistic position. In this context it is to be noted that in November, 1973, a representative of the firm had suggested that it would be possible to accept the claim for the rejected cylinder heads if the DLW Administration placed a further order for 1000 cylinder heads. Again in April, 1974 when a fresh order for supply of 1120 cylinder heads was placed on the same firm the firm expressed its unwillingness to accept the order until the claim for rejected cylinder heads was withdrawn. This gives rise to suspicion about the bona fides of the firm which, it appears to the Committee, wanted to take advantage of the helplessness of the indenor in the matter of supply of a crucial component. The Committee would like the Railway Board to make an exhaustive review of the terms of warranty clauses incorporated in purchase agreements with a view to ensure that they are worded in unambiguous terms and are not susceptible to different interpretations at different hands.

1.96. The Committee's attention has also been drawn to the agreement entered into between DLW and M/s. Overseas Diesel Corporation, New York for the supply of components of the Locomotives. Under the terms of this agreement a restriction had been imposed on the Government of India not to release designs, drawings and other technical data relating to components of diesel engines to certain specified countries in East Europe. This in effect implied that for the requirement of the components of diesel locomotives the Indian Railways had to depend solely on M/s. Overseas Diesel Corporation, New York or its nominated allies. When asked to explain why such a restrictive clause in the agreement was accepted, the Railway Board have explained that from the records available it has not been possible to locate any reasons why such a clause was accepted. The

**Committee urge that the Railway Board should look into this aspect with a view to taking necessary remedial measures.**

**1.97. The audit paragraph also brings into focus the almost pathetic dependence of Railways on imports in so far as certain vital components of diesel locomotives are concerned. The Committee have been informed that the production of cylinder head castings has now been started in Chittaranjan but a break-through has yet to be achieved as the rate of rejections is too high. The Committee need hardly emphasise that more concerted efforts should be made for achieving self-reliance in the manufacture of components and spare parts of the diesel locomotives.**

**Eastern Railway—Procurement of Tyres For Electric Multiple Unit (EMU) Coaches.**

*Audit Paragraph*

**1.98. In March 1971, the Railway Board placed an order on a Belgium firm for manufacture and supply of 3604 tyres required for electric multiple unit (EMU) coaches on Eastern, Central and Western Railways. The total c.i.f. value of the contract was about Rs. 32.48 lakhs. The firm was required to deliver 1200 pieces by 30 September 1971, 400 pieces by 30 October 1971, 1200 pieces by 30 November 1971 and 804 pieces by 31 December 1971.**

**1.99. In April 1971, the Research, Designs and Standards Organisation advised an amendment to the specification of incidental alloying elements for EMU tyres according to which, *inter alia*, the chromium content of the alloy was to be restricted to 0.15 per cent and suggested incorporation of this modification in the subject order. In May 1971, the Railway Board requested the firm to supply the tyres to the amended specification. The firm, in June 1971, declined to accept the change in specification for the reason that the manufacture of tyres was already in progress. The firm also indicated that the steel chosen by it had, *inter alia*, chromium content ranging from 1.1 per cent to 1.4 per cent. The Railway Board, in November 1971, asked the Research, Designs and Standards Organisation to confirm that the reply of the firm was acceptable adding that contractually the suppliers could not be asked to supply tyres with later amendments. The Research, Designs and Standards Organisation, in December 1971, indicated that the offer of the firm for supply of EMU tyres with 1.1 per cent to 1.4 per cent chromium content was unacceptable. The Research, Designs and Standards Organisation also stated that the proposed amendment was necessary in view of heavy incidence of burst tyres experienced in respect of earlier supplies of tyres from Japan, which had chromium content**

of 0.9 per cent to 1.12 per cent. Meanwhile, in September 1971, the Railway Board revised the delivery schedule to November 1971—February 1972, as there was a delay of 17 days on the part of the Railway Board in sending the formal contract duly signed to the firm within the time stipulated by it, namely, 1 March 1971. The delivery schedule was further extended up to 31 March 1972 as there was a strike in the work of the firm.

1.100. The Eastern Railway received 1667 tyres during January to August 1972 against allotment of 1669 pieces. Two tyres were received short and this matter was taken up with the Calcutta Port Trust. In October 1972, five tyres which were fitted on the wheel were found to have cracked. A detailed investigation was undertaken by Eastern Railway in December 1972; representative samples from 19 casts, out of 25 casts involved in the supply, were subjected to chemical and metallurgical tests by the Chemist and Metallurgist of the Railway who, in his report, indicated, *inter alia*, that visual examination and micro characteristic clearly showed evidence of prominent internal defect in the shape of laminations in all the tyres and that the failures might be attributed to presence of inherent internal defects in the materials.

1.101. In September 1973, the Railway decided that, keeping in view the safety aspect, every tyre should be tested ultrasonically. Out of 1440 tyres which were available for testing (213 numbers had already been fitted in coaches and 5 numbers had been rejected), 706 tyres were found defective and unfit for use. In March 1974, the Railway Board asked the supplier to replace these defective tyres in terms of the warranty clause of the contract. Thereupon, the firm desired to have particulars of brand marks, cast numbers and details of deviations from the specifications. The Railway Board forwarded the investigation report of the R. D. S. O. to the firm in April 1975; the cast numbers and brand marks of the defective tyres were advised to the firm in July 1974 and August 1975 respectively.

1.102. The Railway Adviser, London, who carried out inspection of the tyres before shipment to India, was also simultaneously advised of the defects by the Railway Board. He, however, stated (April 1974) that the chemical analysis, mechanical test results and sulphur prints of the heats involved seemed to indicate conformity with specification.

1.103. The firm stated in July 1974 that as per the contract specification, the manufacturer was to supply complete chemical analysis of each cast of steel and the purchaser or his Inspecting Officer should, in case of reasonable doubts, resort to other forms of testing such as ultrasonic, magnetic, etc., as might be mutually agreed to between the concerned parties

for satisfaction that the tyres were free from defects of any kind ; since there had been no doubts with regard to chemical analysis by the inspection at the works, the ultrasonic testing was of course not necessary ; and that the Railway should have obtained their preliminary agreement for ultrasonic testing at destination. The firm stated that the defects were discovered for the first time after hot setting-up at destination and could also be due to unsound handling of the tyres causing change in their structure. The firm, therefore, refused to comply with the request for replacement of the defective tyres.

1.104. At the instance of the Railway Board, the Research, Designs and Standards Organisation also carried out (February 1975) metallurgical investigations on macro sections and micro specimens pertaining to the tyres which initially failed after shrinking on wheel centres as also cut portions from two new tyres out of those found defective in ultrasonic tests by Eastern Railway. These investigations showed that there were internal discontinuities in the form of transverse cracks and distinct flaws in the tyres, which had originated at the time of their manufacture. The Research, Designs and Standards Organisation also opined that the defects discovered initially could not be due to unsound handling of the tyres as contended by the firm, since defects were found even in tyres not taken up for heating and shrinking.

1.105. The firm, however, declined (May 1975) to accept the findings of the Research, Designs and Standards Organisation and the claim of the Railway Board for replacement of the defective supplies. Earlier in July 1974, the Railway Board decided to withhold payment of Rs. 3.90 lakhs available under the bank guarantees furnished by the firm for this particular contract and another contract with the firm. The Chief Accounts Officer, London, was advised to this effect in April 1975 by the Railway Board. The Chief Accounts Officer stated (19 August 1975) that the bank guarantee for the subject contract, validity of which had already expired, was not traceable and that the payment against the other contract had been authorised on 13 August 1975. These defective tyres (706) have been lying with the Railway Administration (February 1976) without replacement or recovery of cost from the firm. The cost of these defective tyres is Rs. 7 lakhs with foreign exchange content of Rs. 5.76 lakhs.

1.106. The Railway Board stated (December 1975) that in a concluded contract enforcement of an amendment in specification retrospectively was not possible in the face of the categorical denial by the firm. It further stated that the firm, in October 1975, had indicated its agreement for the reimbursement of the 'eventual broken tyres' and agreed to extend the warranty period by two years and that the Board was continuing its efforts

to make the firm accept its contractual liability and replace the defective tyres. It was, however, not incumbent on the Board to have revised the delivery schedule when the firm had declined to supply the tyres according to the amended specification.

[Paragraph 18 of the Report of the Comptroller and Auditor General of India for the year 1974-75, Union Government (Railways)]

1.107. During evidence the Member Mechanical, (Railway Board) has informed the Committee that the global tenders for procurement of EMU tyres were issued for advertisement on 26 November 1970 and the tenders were opened on 16 January 1971. The formal contract for the supply of EMU tyres by the Belgium firm was issued on 31 March 1971. In all, 3604 tyres were supplied by the firm, out of which 376 tyres were supplied to the Central Railway, 1559 to Western Railway and the balance 1669 to the Eastern Railway.

1.108. The Member (Mechanical) has further informed the Committee :

“At Central and Western Railways, it was found that there was no failure at the time of mounting or later in service ; it is only in respect of supply to Eastern Railway that the cracking occurred and further examination indicated failure in respect of tyres with five digit cast nos. only which had been received by the Eastern Railway. The supply of the four digit cast nos. received by the Western and Central Railways as also by the Eastern Railway was found to be all right. This has confirmed our views that the failure was not on account of differences in the specifications, but on account of the manufacturing defects for which a claim has already been lodged with the firm.”

1.109. The Committee have been informed that in response to the global tenders, only the Belgium firm had made an offer although previously these tyres had been procured from Japan as also from Hungary and Poland. In this connection, the Chairman, Railway Board has stated :

“Before order was placed on the Belgium firm, in 1968-69, 1969-70 and 1970-71, orders had been placed on M/s. Nikex, Hungary. Actually, the Japanese had supplied once in 1965. So the firm which had supplied in the immediate past before this global tender was Nikex. Only the Belgium firm responded to the global tender. Negotiations were conducted with Nikex, Hungary and Kolmex, Poland, to see if they could supply these. These efforts were made, but because they could not supply, finally the orders were placed with the Belgium firm.”

1.110. It is seen from the Audit paragraph that the order on the Belgian firm for manufacture and supply of 3604 tyres was placed in March 1971. However, in April 1971, the Research, Designs and Standards Organisation (RDSO) advised an amendment to the specification of the incidental alloying elements for these tyres. When in May 1971, the Railway Board requested the firm to supply the tyres according to the amended specification the firm declined to accept the change in specification for the reason that the manufacture of tyres was already in progress. The Committee asked whether at the time of floating the tenders RDSO had felt that a new specification was needed to improve the tyres. The Chairman, Railway Board, has stated :

“Some of the tyres supplied by the Japanese firm in 1965 had shown some signs of distress and cracking after a number of years of service. In the meanwhile, tyres were being obtained to the same specification from Hungary and they served us well—there were no signs of distress. But since some of the Japanese tyres had developed trouble after a number of years. RDSO was having certain investigations. They were studying the literature on this subject in all the other countries. They through the nickel and chromium content in the tyres have a bearing on the internal molecular formation. Really speaking, chromium and nickel are very high cost elements. In our specifications till then, we only said—sulphur should not be more than this, phosphorus should not be more than this, molybdenum should not be more than this, because these were harmful elements which would reduce the tensile strength. But RDSO thought that they should reduce the chromium and nickel content and they revised the specification in May 1971.”

1.111. The Committee desired to know the circumstances which necessitated amendment to the specification of tyres for EMU coaches. In a note dated 19-8-1976 the Ministry of Railways have stated :

“A number of cases of EMU motor coach tyres cracking in service occurred during the year 1968-69 on the South Eastern Railway. The tyres cracked in service after earning a kilometrage ranging from 38,000 to 99,000. The failed tyres had been supplied by M/s. Sumitomo Metal Industries, Tokyo, Japan, against ICF contract No. ICF/2164/S/EBI/267/FP dated 18-8-1964. Detailed investigations of the failed tyres revealed that the failures were due to thermal effects on account of cyclic heating and cooling of the tyres because of frequent

braking on the EMU stock. The tyres, however, did conform to IRS specification No. R15-64 and satisfied the clauses specified therein for EMU tyres. The chemical analysis of the tyres showed that the actual percentage for chromium was 0.98 to 1.12. No limit of chromium was laid down at that time in the IRS specification No. R15-64. After detailed studies and investigations, reference to technical literature on failure of tyres due to thermal effect and check of international specifications, it was found that the tendency to develop cracks during repeated thermal stressing increases with increasing percentage of chromium. ASTM. 329 for driving tyres of locomotives etc. laid-down the following permissible limits of incidental alloying elements :

Chromium . . . . .	% Max	0.15
Nickel . . . . .	% Max.	0.25
Molybdenum . . . . .	% Max.	0.06

Since the chromium percentage in the EMU tyres which had failed in service was found to be far in excess of the limit prescribed in ASTM-A. 329, it was included, after detailed analysis, that the failures of tyres supplied by M/s. Sumitomo Metal Industries, Tokyo, Japan, on South Eastern Railway was due to higher chromium content combined with high axle loads and severe braking as obtainable on EMU motor coaches. As the IRS specification No. R15-64 specified no limits for the alloying elements, it was decided that the alloying elements viz. Chromium, Nickel Molybdenum should be limited to the maximum percentages specified in ASTM-A. 329. The IRS specification No. R15-64 was, therefore, amended vide Corrigendum Slip No. 3 of May 1971 to include the clause regarding restrictions of incidental alloying elements for EMU tyres to the following :—

Chromium . . . . .	% Max.	0.15
Nickel . . . . .	% Max.	0.25
Molybdenum . . . . .	% Max.	0.06

Such amendments to specifications based on experience and studies is a very normal and continuous developmental activity and it does not imply that all further ordering of materials is suspended till the amendments to individual specifications are finalised. Materials continue to be ordered to current specifications. It was thus in the normal course of working that the Contract No. 71/RS(WTA)-38/Tyres/874/VIII dated 31-3-1971 for 3604 tyres for EMU coaches was placed by the Board on M/s.



Groupment Belgium, on 31-3-1971 and Corrigendum Slip No. 3 to IRS specification No. R15-64 was issued in May 1971. However, this Corrigendum Slip No. 3 would not have prevented the defects in the Belgium supply of tyres as the cause of the defects is totally different."

1.112. It would appear from the above that RDSO was investigating the incidence of cracked tyres that had occurred in the tyres supplied earlier by a Japanese firm. The Committee asked when the incidence of cracked tyres in respect of earlier supply of Japanese tyres had come to the notice and whether it was before the contract with Belgium firm had been finalised in March 1971. The Committee also asked as to why tenders were invited and orders placed on the basis of defective specification. The Ministry of Railways have, in a note stated :

"The first case of incidence of cracked tyre in respect of earlier supply of Japan came to notice of RDSO in October 1968 on S.E. Railway. It may be reiterated here itself that the cracking was after considerable usage in service (and not at the time of the very first shrinking of the new tyre on the wheel centre as happened in the case of the Belgium supply). There was no recurrence on S.E. Railway for the next 2 months. Some more fractures occurred in January 1969 and by March 1969, 18 Japanese tyres had failed in service.

The incidence of failure of Japanese tyres had, therefore, come to notice of RDSO before the contract with M/s. Groupment Belgium was finalised in March 1971 by the Board . . . It may be again clarified that the Corrigendum Slip No. 3 was issued only to guard against incidence of thermal cracks in service due to cycle heating and cooling in EMU tyres in future, which was necessitated by the actual experience gained on the South Eastern Railway with the earlier specification R15-64 (i.e. without Corrigendum Slip No. 3).

On receipt of reports of failure of Sumitomo tyres (Japanese tyres) from South Eastern Railway, prompt investigations were carried out by RDSO in association with South Eastern Railway. As a number of factors like thickness of tyre, interference between tyre and wheel centre, use of improper quality of brake blocks, generation of high heat between brake blocks and the tyres on account of brake binding normal braking, material specifications of the tyre specific shoe pressure, could contribute to the fracturing of tyres, the effect of each factor had to be individually gone into in detail and the relevant factors had to be eliminated

by the process of elimination. After studying the various international specifications and literature available on the causes of tyre fractures, RDSO could come to a decision about the amendment of the specification R15-64. This, naturally, took time and the Corrigendum Slip No. 3 to the specification R15-64 could be issued only in May 1971.

As regards the Belgium supply, it may be clarified that in the course of use of these tyres, Eastern Railway, sometime in October 1972, reported 5 cases of totally new tyres having cracked/fractured during the process of fitting them on the wheel centres. On 30-10-1972, 3 more cases of such tyre fractures occurred simultaneously. The case was investigated thoroughly by Eastern Railway and it was found that 5 tyres which had initially failed showed internal flaws in the tyre structure. Any possibility of incorrect fitting could be ruled out as the tyres were bored to the correct diameter as per the permissible limits before fitting on the wheel centres. Further investigations by RDSO on two samples of new unshrunk tyres found defective by Eastern Railway, on ultrasonic tests revealed internal discontinuity/cracks in them which obviously had originated at the time of their manufacture.

It will, therefore, be evident that the cracking of the Belgium tyres occurred during the process of fitment of the tyres on to the wheel centres and was attributed to the manufacturing defects in the tyres. This is also borne out by the fact that 371 tyres out of 699 have been found defective on ultrasonic test as per method suggested by M/s. Groupment Belgium viz. UIC Code 853-1. The fracture of Belgium tyres has, therefore, no resemblance whatsoever with the fracturing of the Sumitomo tyres which had occurred due to thermal effects after the tyres had earned kilometrages varying from 38,000 to 99,000. Even if the amendment to the specification R15-64 had been issued earlier than the placement of order for 3604 tyres on M/s. Groupment Belgium, if the manufacture was proper, the defects would still have occurred on these tyres and the failures during the process of shrinking would still have occurred on the Eastern Railway."

1.113. In another note, the Ministry of Railways have explained the reasons for the long time taken by the RDSO in completing the investigations :

"The first case of incidence of cracking of tyres on the S.E. Railway, in respect of an earlier supply of Japan, came to the notice of

RDSO in October 1968. Again some more fractures were noticed in January 1969 and by March 1969, 18 Japanese tyres had failed in service out of 577 Nos. On receipt of reports of failure of Sumitomo tyres (Japanese tyres) from South Eastern Railway, prompt investigations were carried out by RDSO in association with South Eastern Railway. As a number of factors like thickness of tyre, interference between the tyre and wheel centre, use of improper quality of brake blocks, generation of high heat between brake blocks, and the tyres on account of brake binding/normal braking, material specifications of the tyre and specific shoe pressure, could contribute to the fracturing of tyres, the effect of each factor had to be individually gone into in detail and the relevant factors had to be eliminated by the process of elimination.

Only after all this had been done that the RDSO came to the conclusion some time in February 1971 that an amendment in the specification was necessary."

1.114. The Committee asked when it was known that RDSO were investigating into the need for a change in the specification of tyres, why could not the calling of global tenders be delayed to admit of the amended specifications being incorporated in the tender schedule before its issue on 26 November 1970. In a note, the Ministry of Railways have stated :

"It was known that RDSO were investigating into the cause of bursting of tyres. It was, however, not known that it will result in an amendment of the specification. Such studies are normal and continuous developmental activities. The fact of a study going on does not require that all further ordering of material should be suspended till the study is finalised. Besides, these tyres were required continually to keep the Electrical Multiple service in good fettle.

Since supply of tyres to the then current specification i.e. IRS R. 15-64 with Corrigendum Nos. 1 and 2 procured earlier from Japan and thereafter from Nikex/Hungary had functioned in a satisfactory manner, there was no cause to be apprehended that ultimately a change in the specification would become necessary. Railways also needed tyres to main EMU service."

1.115. During evidence the Member Mechanical has stated :

"At that time when this order was placed, we were not aware that there was going to be a change in the specification for EMU tyres."

In the same context the Chairman, Railway Board has stated :

“Some of the Japanese tyres which were supplied in 1965 have failed after some years. On the same specification we have been getting tyres from Hungary in 1968-69, 1969-70 and 1970-71 and they have not given any trouble, of course the RDSO always try to improve the specifications. There was nothing suspicious at that time about the specifications to prevent global tenders from being invited.”

1.116. In regard to the time taken by RDSO for completing their investigations of the defects noticed in the EMU tyres, the Member Mechanical has stated :

“RDSO started the investigation after the tyres had burst. Then it took two years to carry out all the detailed investigations because of the parameters to study all these things.”

1.117. The Committee asked whether it was not necessary to consult RDSO before placing orders for some sophisticated equipment. To this, the Member Mechanical has replied :

“Once the specification had been laid down, for every order that we place, consultation with the RDSO is not done because we procure them according to the specification laid down.”

1.118. The Chairman, Railway Board has further clarified :

“The RDSO duties and responsibilities are to supply designs and specifications for the items that we procure ; whether it will be in the field of machine tools or anything else, it is their duty to supply them. The Railway Board, when they call for global tenders, take those designs and specifications into account. Therefore, the RDSO's specifications are followed. But when the tenders are received, if there is any doubt or if there is any variation from the specification, then they are sent to the RDSO for clarification.”

1.119. As the RDSO had been investigating the matter regarding defects in EMU tyres for quite some time, the Committee asked why this fact was not taken into account before floating the tenders in accordance with the old specifications. The Chairman Railway Board has stated :

“The only explanation to this point is—and this is my submission. If the tyres which had been procured in 1968, 1969 and 1970 according to the original RDSO specification, had given trouble

then it would have definitely given trouble later on also. But these tyres behaved perfectly all right. That is why the tenders were accepted."

1.120. The Audit para points out that in June 1971, the firm while declining the acceptance of the amended specification, had indicated that the steel chosen by it had, *inter alia*, chromium content ranging from 1.1 per cent to 1.4 per cent. This fact was referred to the RDSO by the Railway Board in November 1971 and the RDSO then indicated that the proposed amendment to the specification was necessary in view of heavy incidence of burst tyres experienced in respect of earlier supplies of tyres from Japan, which had chromium content of 0.9 per cent to 1.12 per cent. The Committee asked what was the point in asking RDSO's opinion after the contract with the Belgium firm had already been finalised. The Chairman, Railway Board has stated :

"We were urgently in need of tyres for EMU. I emphasise again that the tyres which had been supplied in 1968, 1969 and 1970 to the same specification have not given any trouble. So global tenders were called according to those specifications. If there had been some trouble with the tyres supplied earlier, we would have again consulted the RDSO. When the RDSO were consulted, they said, 'we are advising a change in specifications'. We have got full faith in RDSO and we tried to see if the contract could be amended to suit those specifications."

1.121. The Committee asked whether the tyres subsequently imported with the changed specifications had shown some improvement in the performance. The Chairman while replying in the affirmative has stated :

"After the RDSO changed the specifications, our further tenders are based on the RDSO specifications. Even in regard to the Belgium contract, the tyres supplied to the Western and Central Railways did not give any trouble. Thirdly, after the RDSO revised the specifications, we have got tyres from the British Steel Corporation, M/s. Nikex Hungary and Korea. Our experience till now is that they are alright."

1.122. The Committee asked whether the Railway Board was satisfied that the time taken by RDSO in coming to a decision about the specifications of EMU tyres was reasonable and there was no undue delay. The Member Mechanical has stated :

"For the purpose of this investigation one has to go into a lot of parameters like the chemical composition, the quality of brake

pressures etc. Considering all that, the time taken is not unduly long.”

1.123. In the same context the Chairman, Railway Board has stated :

“In a complex matter like this to give an opinion like that, we feel that it was (time taken) justified.”

1.124. In reply to a question whether RDSO was at any time consulted about the progress of their research work, the Chairman, Railway Board has stated:

“The practice is that the Railway Board discusses at least once in a quarter with the RDSO the progress of their research work. Therefore, the Railway Board must have been fully aware of the progress.”

He, however, added :

“Before calling for the tenders, there was no discussion with the RDSO as to whether there was need to alter the specification and when it could be adopted.”

1.125. When the Committee put it to the witness that a lapse had taken place, the Chairman, Railway Board has conceded :

“Consultation with RDSO could have been better, I agree.”

1.126. The Audit paragraph states that in June 1971, the Belgium firm declined to accept the change in the specification on the ground that the manufacture of the tyres was already in progress. The Committee desired to know whether it had been found out from the Railway Adviser as to what was the progress made in the manufacture of tyres at that time. The Member Mechanical has stated :

“The supply of tyres was to commence eight months after the placement of the order. There were no actual tyres being produced at that point of time. To manufacture the tyres, you have to procure the steel you have to select the steel for the purpose, and start taking initial action. That is only with respect to the initial action that was taken by the firm.”

1.127. The Committee asked whether any effort was made to persuade the firm to accept the modification in the specification after payment of some compensation for the amount already spent by them. To this, the Member Mechanical replied :

“We did not do that.”

1.128. In a note, furnished to the Committee, the Ministry of Railways have stated :

“Our tender enquiry, firm’s quotation as well our acceptance of the offer was as per the specification then current viz, IRSR. 15—64 with Corrigendum No. 1 of May 1965 and No. 2 of February 1967. Subsequently RDSO advised on 14-4-1971, that Corrigendum No. 3 of this specification was under issue. The matter was referred to the firm and they were asked to supply the material to the amended specification. The firm replied on 7-6-1971 that as the manufacture was already in progress, it would not be possible for them to supply tyres to the amended specification.

In view of this, any further efforts on our part to press the firm for a change in the specification was not considered appropriate.”

1.129. Since the firm had expressed its inability to accept the suggested change in specifications, the Committee asked why did not the Railway Board invoke clause 8 of the General Conditions of the Contract which lay down the procedure for alteration in the work subject to price being negotiated and agreed upon the both parties. In a note the Ministry of Railways have stated:

“Under clause 8 of the general conditions of contract, it is provided ‘that the purchaser or his nominee may require such alterations to be made on the work during its progress as he deems necessary. Should these alterations be such that either party to the contract considers the alteration in price justified, such alteration shall not be carried out until amended prices have been submitted by the contractor and accepted by the purchaser’. This provision for alterations is an enabling provision to carry out such minor changes as may be found necessary during the progress of the work with mutual agreement and with alteration in price as may be justified. In the present case, the Railway Board did ask the supplier to supply according to latest corrigendum No. 3 and had the contractor agreed, the necessary amendment to the contract would have been issued in consultation with IDA authorities since the procurement was against IDA Credit.

The contractor, however, did not agree to the alteration as manufacture to the old specifications was already in progress. At that stage, contractually the supplier could not be asked to supply tyres with later amendments.”

1.130. The Committee desired to know what was the legal opinion in regard to Railway Board's right to alter the specification subject to negotiation of reasonable price. The Ministry of Railways have, in a note stated:

"With the issue of telegraphic acceptance on 17-3-1971, the contract came into being between the President of India on one hand and the contractor on the other. Any alteration in the specification or terms and conditions of the contract could only be made with the consent of both the parties.

The firm was requested to agree to the change of specification. In reply they stated that they had already chosen the steel and, therefore, were unable to accept the suggested change. In view of this, the question of our holding any negotiations with the firm did not arise. Since no legal point was involved, the legal opinion was not sought.

The purchase was finalised under IDA Credit and the guidelines for procurement under World Bank loans and IDA Credits stipulate the following :—

'Clarifications or Alterations of Bids.

.....The Borrower may ask any bidder for a clarification of his bid but should not ask any bidder to change the substance of price of his bid'.

'Award of Contract.

... , such bidder should not be required, as a condition of award, to undertake responsibilities or work not stipulated in the specifications or to modify his bid'.

Therefore, any further efforts on our part to press the firm for a change in specification would have infringed the World Bank Guidelines."

1.131. During evidence the Committee enquired whether the guidelines for procurement under World Bank loans and IDA Credits precluded any legal action against the firm for not agreeing to the change in specifications. The Financial Commissioner for Railways has stated :

"It is true that normally all the specifications are to be given in the tender documents and thereafter they should not be changed. But in case the purchaser and seller agree to some change, we could go to the World Bank. In that case, they do agree to accept such modifications."



He has further added :

"The point was that if the specification was changed, it would mean a change in price and it may be that the World Bank might insist on having another tender because then the old tender would take a different complexion. As stated by my colleague earlier, they did not have any apprehension that these things would fail even at the very initial stage. Possibly it was not considered necessary to reopen the issue with the World Bank."

*Delivery Schedule*

1.132. As per the formal contract sent by the Ministry of Railways on 31 May, 1971 to the Belgium firm, the following delivery schedule was provided for :

- 1200 pieces by 30 September, 1971.
- 400 pieces by 31 October, 1971.
- 1200 pieces by 30 November, 1971.
- 804 pieces by 31 December, 1971.

From the information made available to the Committee it is seen that on 6 April, 1971 and 16 April, 1971 the Indian agent of the firm wrote to the Railway Board that as the formal contract had been delayed beyond 1 March, 1971, the delivery time should be extended by one month and that the revised delivery schedule should be read as follows :

- 1200 pieces by 31 October, 1971.
- 400 pieces by 30 November, 1971.
- 1200 pieces by 31 December, 1971.
- 804 pieces by 31 January, 1972.

In a cable sent by the Railway Board to the firm on the 11 May, 1971, the following delivery schedule was agreed to :

- 800 pieces by 1 November, 1971.
- 400 pieces by 15 November, 1971.
- 140 pieces by 15 December, 1971.
- 800 pieces by 31 December, 1971.
- 400 pieces by 15 January, 1972.
- 802 pieces by 1 February, 1972.
- 262 pieces by 15 February, 1972.

On 18 September 1971, this revised delivery schedule was formally conveyed to the supplying firm in the form of an amendment to the formal contract of 31 March, 1971. The Railway Board, *vide* amendment No. 2 issued on 15 March, 1972, extended the date for completion of delivery from 15 February, 1972 to 31 March, 1972. Explaining the reasons for changes made in the delivery schedules, the Ministry of Railways have, in a note, stated :

“The firm initially quoted the delivery commencing 8 months from the date of receipt of the order at the rate of 1200 Nos. per month. According to this the delivery would have commenced in November 1971 and the terminal date would have been mid February 1972. In order to utilise the IDA credit within the target date, they were requested to improve upon the delivery schedule. The improved delivery schedule offered by the firm was subject to order being received by them before 1-3-1971 in which case they offered to commence delivery in September 1971 and complete by December 1971. The order could not be placed by this date as Railways were negotiating for better terms with M/s. Nikex who were the last supplier of this item.

The negotiations with M/s. Nikex were spread over during the period 24-2-1971 to 31-3-1971 and during these discussions M/s. Nikex offered to supply only 500 Nos. of these tyres at a unit f.o.b. price of Rs. 637. This offer was availed of an order No. 71/RS(WTA)41/Tyres/874/XIII dated 13-5-1971 was placed on Nikex for 500 Nos. against Railways requirements of 1972-73.

As the Railways requirements of this item during 1971-72, *i.e.*, 3604 Nos. could not be deferred, telegraphic acceptance of their offer was communicated to M/s. Groupment on 17-3-1971..... After the formal contract was issued, firm's Indian Agents requested for revision of delivery period so as to conform with their original quotation *vide* their letters No. 1997 dated 6-4-71 and No. 2183 dated 16-4-1971. Accordingly, the delivery schedule was revised under Railway Board's cable No. 16 dated 11-5-1971.”

1.133. The Committee asked when the firm was not agreeable to accept the change in the specification why did the Railway Board extend the delivery schedule to accommodate the firm. In a note, the Ministry of Railways have stated :

“It was necessary to extend the delivery period upto February 1972 as the order could not be placed by 1-3-1971 to enable the

firm to improve upon the delivery. In order to improve the delivery, the firm would have possibly reserved capacity in their works for the appropriate periods. Due to delay of 17 days in confirming the order, possibly that capacity might not have been available with the firm. The firm asked for a further extension of the delivery period to March 1972 due to strike in their works a circumstance which was beyond their control. Contractually it would not be correct to connect it with the firm's inability to accept the change in specification which was due to manufacture to the earlier specification having started."

1.134. The Committee asked whether it was proposed to levy liquidated damages on belated supplies. In this connection, the Ministry of Railways have stated :

"Since the first revision of the delivery schedule was in conformity with the firm's original offer and the second due to strike in firm's premises—during the period 1-11-1971 to 30-12-1971, namely, a *force majeure* condition over which the firm had no control, it is not proposal to levy liquidated damages for belated supplies."

1.135. It is seen from Audit paragraph that on the basis of ultrasonic tests carried out by the Eastern Railway, 706 tyres were found defective and unfit for use. In March 1974, the Railway Board asked the supplier to replace these defective tyres in terms of the warranty clause of the contract. The Railway Adviser, London, who carried out inspection of the tyres before shipment to India, was also simultaneously advised of the defects by the Railway Board. He, however, stated in April 1974 that chemical analysis, mechanical test results and sulphur prints of the heats involved seemed to indicate conformity with specification. The supplier firm also stated that as per the contract specification the manufacturer was to supply complete chemical analysis of each cast of steel and the purchaser or his Inspecting Officer should, in case of reasonable doubts, resort to other forms of testing such as ultrasonic, magnetic, etc. as might be mutually agreed to between the concerned parties for satisfaction that the tyres were free from defects of any kind.

1.136. During evidence the Committee enquired how could the defects noticed in the tyres pass through inspection carried out by the Inspecting agency. The Member Mechanical has stated that the Belgium Railways had carried out the inspection and "from what report we have received, they have done it properly." The Committee asked why did the Railways rely

only on the Belgium Railways when the Railway Adviser who was technically competent to do the test was also available for this work. The Member Mechanical has stated :

"The inspection of wheels and tyres has to be done continuously. A man must be posted there all the time for the duration of the period the tyres are under manufacture. The Deputy Railway Adviser has got other work also, other inspections to be done."

1.137. As to the role of the Railway Adviser, the Member Mechanical has stated :

"The actual inspection was done through the agency of the Belgium Railways. But he is supposed to have the checks carried out."

1.138. The Committee asked if the checks had been carried out by the Railway Adviser and, if so, how the defects as mentioned in the Audit paragraph had escaped his attention. The Member Mechanical has stated :

"The Deputy Railway Adviser carried out oversight inspection as to how things are going on. But the actual inspection is carried out by the agency in this particular case the Belgium Railways."

He has added :

"The defects were internal defects and from the visual examination, the internal defects would not be visible."

1.139. The Committee then drew attention to the observations in the Audit paragraph which, *inter alia*, stated that "visual examination and micro characteristics clearly showed evidence of prominent internal defect in the shape of laminations in all the tyres." Clarifying the implication of the visual examination, the Member Mechanical has stated:

"This result...was after the section of the tyre was cut and then a conclusion was arrived at; it became visual after it was cut."

1.140. The Additional Member Mechanical has added in this connection :

"In metallurgical tests, the method that we adopt is that the tyre is subjected to an ultrasonic tests. We see on the oscilloscope whether the beam is reacting well or not and whether there is any lamination inside. With the oscilloscope and the ultrasonic equipment, we are visually able to see on a screen outside whether there are any internal defects or not. According to what you had just now read out, it is clearly mentioned that he has

done micro characteristic examination and sulphur prints. Sulphur print can only be done when you cut the tyre. It cannot be had from the tread of the tyre. You have to cut it. After you cut it, etch it and then grind it and make the surface clean and thereafter make the sulphur print. At that moment, you have already cut the tyre to find out what is wrong. The Audit Report observation is very correct. There is nothing wrong in it. He has said, 'visually'."

1.141. The Chairman, Railway Board has further clarified :

"There are two things. One is whether a tyre, as it is, is capable of examination by a Metallurgist, according to the standard practice. That is the point. If he wants to find out whether there are any flaws, he has necessarily to cut a sample. He has to submit a report. He just cannot take a tyre and say that there are laminations. When he says visual examination, what he means is that he has cut a piece both for visual examination and for ultrasonic examination and that there are defects. That is precisely what he means."

1.142. The Committee asked what was the basis of the observations made by the Railway Adviser, London to the effect that "chemical analysis, mechanical test results and sulphur prints of the heats involved seemed to indicate conformity with specification.". The Chairman, Railway Board, has stated :

"The tyres have already come to India. He must have scrutinised the report of the Inspecting agency and then verified it."

1.143. When asked whether such a verification did not amount to signing on the dotted lines, the Member Mechanical has stated :

"The international practice is that the inspecting agency's reports are honoured. The Adviser visits Europe and carries out some inspection as to how the procedure has been followed. He also carries out the spot inspection of what had been purchased. Then only he puts his signature."

The Chairman, Railway Board has added :

"Your question was, whether this is an international practice. For doing this chemical examination, mechanical test, sulphur print and all that, we require a lot of equipment. Therefore, the international practice also is, when equipment is purchased in other countries, that they entrust it to a reputed organisation there."

For example, when various countries are now purchasing rails and rail fittings, we are doing the inspection, the chemical tests, sulphur prints and all that. This is an international practice. It is definitely the responsibility of an organisation who do it to see that they do it properly."

1.144. Referring to the tests carried out by the Inspecting Agency, namely, the Belgium Railway, the Chairman, Railway Board, has further stated :

"The same type of test as was done in India by the Chemist and Metallurgist should have been done there also..... The inspecting agency should have taken a sample from each cast and submitted it to the test. They are supposed to have done it and given their reports. When the Railway Adviser says it in April 1974, by that time, the tyres had arrived in India. What he has done is that he has gone through various chemical test reports which the inspecting agency had done and he is saying that those reports indicate conformity with specifications."

1.145. The Committee enquired whether any specific reference was made by the Railway Board to the Railway Adviser to the effect that the information given by him about the tests at the time of despatch was not found to be correct. The Committee also asked whether the matter regarding divergence of opinion on the tests carried out in India and the tests carried out by Belgium Railways as inspecting agency had been taken up with the Belgium Railways. In a note, the Ministry of Railways have stated :

"No such reference was made by the Railway Board in view of the following :

The inspection was entrusted by Railway Adviser, London to Belgium National Railways and the oversight inspection was entrusted to a Technical Assistant in the R.A's. organisation.

In case of oversight inspection, the official countersigning the inspection certificate normally ensures that the material supplied is as per specification and the tests as detailed in the specification are carried out. In this case, each inspection certificate was accompanied by physical test report, *i.e.*, report of drop test and tensile test report. Chemical analysis report was also submitted by the Belgium National Railways which was checked. It is relevant to point out here that the results of the aforesaid tests were as per the specification and, therefore,

neither Belgium National Railways nor R.A's organisation insisted upon the ultrasonic test, which is required to be conducted only in the event of doubt.

The matter was not taken up by the Railway Adviser with the Belgium National Railways as it was felt by him that the Belgium National Railways had carried out the inspection strictly as required by the specification and since there was no cause for a doubt, they had not resorted to ultrasonic test."

1.146. The Member Mechanical has informed the Committee during evidence that at the time agreement was entered into with the Belgium firm for supply of tyres, no provision for ultrasonic test had been made as per practice then prevailing. The reason for this was that in the past there was never an occasion for rejection on such a large scale. He has, however, added :

"These are internal manufacturing defects which are highlighted by ultrasonic test. If you have to test ultrasonically each tyre, the cost will go up; it takes about half an hour to test one tyre. That is why, it had been kept open. What I now propose to do is to test five per cent from each cast."

1.147. The Audit paragraph points out that in September 1973, when the then available 1440 tyres were tested ultrasonically by the Eastern Railway, 706 tyres were found defective and unfit for use. However, the results of these tests were not accepted by the supplier firm as according to them the tests were defective inasmuch as they did not conform to the internationally accepted testing procedure which was contained in UIC Code 853-1. The Chairman, Railway Board, has stated in this connection :

"Earlier, ultrasonic testing was done by the Eastern Railway, and when the result of the ultrasonic test was sent to the firm, they said that that was not as per the international code, that is, UIC Code. Then we consulted the RDSO. In India, at that time, there was no code for ultrasonic testing. The equipment available with the Eastern Railway was meant for testing axle. RDSO later checked with their equipment and they adopted UIC standard, which is an international standard because we had no code at that time in India."

He has added :

"The Eastern Railway did not use the proper equipment for the tyre nor did they follow UIC Code which was an accepted standard."

- 1.148. The Committee asked when the Eastern Railway was not properly equipped for making ultrasonic tests, why they were allowed to make such tests which were later on not accepted by the firm. The Chairman, Railway Board, has stated :

“Actually, they should have asked the RDSO to do it. Later on, the RDSO did it. But, in the beginning it was the Eastern Railway who had to do it.”

- 1.149. The Member Mechanical has stated during evidence:

“At that time, the expertise about the ultrasonic testing of tyres was really not available. They tried to do it only with whatever little knowledge they had, and on whatever little flaw noticed by them under that, they rejected it. But, finally, they were aware of the UIC testing procedure, which took into account the tolerance permissible for the ultrasonic testing. Then we rejected the lower number and at that time, I would only say that the knowledge was not available.”

- 1.150. The Committee enquired whether the supplying firm has agreed to replace 389 tyres found to be defective as per the ultrasonic testing procedure. The Member Mechanical has stated that “so far they have not accepted it. We have, however, not given it up.” In a note dated the 19 August 1976, the Ministry of Railways have stated :

“After discussions with the firm R.A., London advised (on 23-2-1976) that the firm is considering acceptance of the tyres rejected on the basis of the criteria laid down by UIC Code 853/1. RDSO re-tested the rejected tyres on the basis of UIC Code 853/1 and had submitted their report in 3 parts—firstly on 28-6-76, secondly on 20-7-1976 and finally on 11-8-1976. In their latest letter dated 11-8-1976 they have advised that 376 tyres are rejectable—further 12 Nos. have been cut up during investigation and 317 Nos. are acceptable, bringing the total to 705 Nos. Therefore, test data in respect of one tyre has yet to be received from RDSO. However, DRA/Bonn has been advised on 13-8-1976 to treat the quantity of rejected tyres as 389 (376+12+1).

The test data sent by RDSO in their interim reports was sent to DRA/Bonn. In his telex of 12-8-1976, DRA/Bonn has advised that test data is being scrutinised by the firm and he is expediting them for an early decision with regard to replacement. The approximate cost of 389 tyres is Rs. 3.89 lakhs.



The following mentioned bank guarantees are still current and have been withheld :

- |  |   |
|--|---|
| (i) No. 71/RS (WTA)—36/Tyres/874/1<br>dated 30-3-1971.   | For Rs. 2.39 lakhs approx. valid upto<br>31-10-1976 |
| (ii) No. 72/RS (WTA)—51/Tyres/874/IX<br>dated 22-6-1972. | For Rs. 1.2 lakhs valid upto 30-9-1976              |

As regards contract No. 71/RS(WTA)-38/Tyres/874/VIII dated 31-3-1971, Bank Guarantee for Rs. 2.7 lakhs approx. Which was to be submitted by the firm to chief Accounts Officers, London, is still being traced by the later. He has been asked to obtain a duplicate copy of the bank guarantee, if original is not traceable and to get it extended upto 31-3-1977. His reply is awaited."

1.151. In another note subsequently furnished to the Committee, the Ministry of Railways have stated :

"As per the ultrasonic tests conducted by RDSO, 388 tyres finally stand rejected. RA/London and DRA/Bonn have been in touch with the firm regarding free replacement of 388 tyres FOB value-BF 1,943,880 (Rs. 2.95 lakhs) under the warranty clausc. The firm have, on 7-9-1976, accepted rejection of 358 tyres (the test results in respect of the balance quantity being still under examination by them). These firm have further suggested that the scrap value of the rejected tyres would be equivalent to the value of 83 tyres. They have, therefore, offered to make free replacement of 275 tyres. The firm has been (on 20-9-1976) advised that in term of the contract, they are required to make free replacement of the rejected tyres at destination and thus they can take delivery of the rejected tyres from us. Further that they should make free replacement of 389 tyres. The test data in respect of about 25 tyres is still to be obtained from Eastern Railway and, thereafter the question of replacement of these tyres will be taken up with the firm.

In the meantime, the firm have submitted a bank guarantee valued at BF 1,805,604 (Rs. 2.7 lakhs) representing 10 per cent FOB value of the contract current upto 31-3-1977. This B. G. will be utilised to ensure that the firm makes replacement of 388 tyres and suitable warranty period for these tyres."

1.152. According to the Audit paragraph, the Railway Board had in July 1974, decided to withhold payment of Rs. 3.90 lakhs available under

the Bank guarantee furnished by the firm for this particular contract and another contract with the firm. The Chief Accounts Officer, London was advised to this effect in April 1975 by the Railway Board. The Chief Accounts Officer stated on 19 August 1975 that the bank guarantee for the subject contract, validity of which had already expired, was not traceable and that the payment against the other contract had been authorised on 13 August 1975. The Committee asked how could the Chief Accounts Officer, London authorise payment in August 1975 against the bank guarantee relating to another contract for the tyres ignoring the specific directive of April 1975 of the Railway Board to withhold the same. The Ministry of Railways have in a note, explained :

“Chief Accounts Officer, London has on 28-4-1976 advised that the balance payment of BF 196,964 (Rs. 29,520) relating to contract No. 72/RS (WTA)-51/Tyres/874/IX dated 22-6-1972 was released on 13-8-1974 and not on 13-8-1975 as earlier stated by him. In this context, it may be stated that Railway Board under their letter dated 26-3-1974 advised CAO, London to arrange recovery of the full cost of the defective tyres from any outstanding bill of the firm. This letter had been duly received by CAO, London.

In his letter No. ACCTS/DIR/188 dated 24-4-1974 CAO, London, had indicated that only an amount of BF 196,964 remains to be paid. Although he had not asked any further instructions or confirmation regarding withholding of this amount he has stated in this letter No. ACCTS/SI/DRI/188 dated 28-4-1976 that payment of BF 196,964 had been made as he did not receive any confirmation from the Railway Board. This position, however, is not accepted as our instructions dated 26-3-1974 regarding withholding payments were quite clear and he had not asked for any confirmation.”

1.153. Explaining the position on this point, the Ministry of External Affairs have, in a note, stated :

“The payment of Belgium Francs 196,964 was authorised to the firm on 13-8-1974 and not on 13-8-1975. Instructions to withhold this amount provisionally contained in the Railway Board's letter No. 71/RS(WTA)-38/Tyres/874/VIII dated 19-4-1975 could not be carried out by CAO, London as the payment had been released long before the receipt of that letter.”

1.154. The relevant extracts from the correspondence on this subject exchanged between the Ministry of Railways and the Chief Accounting Officer, High Commission of India in London are reproduced below :

- (i) *Letter No. 71/RS(WTA)-38/Tyres-874/VIII dated 26-3-1974 from Ministry of Railways to the Chief Accounts Officer, High Commission of India, London.*

“Please arrange to recover the full cost of the tyres (721 Nos.) from outstanding bill of the firm, if the payment of the same has already been made to them....”

- (ii) *Letter No. ACCTS/SI/DLR/188 dated 24-4-1974 from the High Commission of India, London to Ministry of Railways :*

“We have no bills outstanding against the above contract from which the recovery can be effected. Please let us know the contract number against which the recovery can be made. We have only been able to trace out contract 72/AS/(WTA)-SI/TYRES/874/IX dated 22-6-1972 against which BF 196,964 remains to be paid. This does not cover the cost of 721 tyres.”

- (iii) *Letter No. 71/RS(WTA)-38/Tyres/874/VIII dated 18/19-4— 1975 from the Ministry of Railways to the Chief Accounting Officer :*

“Ref : Your letter No. ACCTS/SI/DIR/188 dated 24-4-1974.

Under the circumstances indicated in your letter referred to above, it is desired that the amount of BF 196,964 available with you against contract No. 72 RS(WTA) 51/Tyres/874/IX dated 22-6-1972 may be withheld provisionally till further advice.”

- (iv) *Letter No. ACCTS/SI/DIR/188 dated 19-8-1975 from the High Commission of India, London to the Ministry of Railways :*

“As regards withholding of payment against contract dated 22-6-1972 it has been verified that the same was authorised through IDA vide Application No. L. 52 on 13-8-1974. It is further observed that no instructions to withhold this payment was received from end till that time.”

1.155. As to the loss of the guarantee, the representative of the Ministry of External Affairs has stated during evidence :

“When it was made known to us that this particular guarantee was not traceable we wrote to the Chief Accounts Officer, London in this connection. It was a period when the Accounts Office was being shifted from place to place as a part of the re-organisation scheme. When we got the message, we asked them forthwith try to revalidate the guarantee and a message has been received that this has been extended upto 31-3-1977.”

*Indigenous manufacture of EMU tyres*

1.156. The Committee enquired whether EMU tyres were being manufactured indigenously. The Member Mechanical has stated :

“The tyres are manufactured in the country but only TISCOs are manufacturing. But they are not manufacturing the tyres required for the EMU, i.e., to the same hardness that we need. If we are in distress, we sometimes ask them to manufacture to a low hardness of steel, but nobody else is doing it. Durgapur people are not doing it. Durgapur is doing only the wheels and not tyres. At the moment there is no other agency doing the EMU tyres.”

He has added :

“In regard to tyre manufacture, we asked the TISCO people whether they would be able to manufacture to that specification. We are not pursuing the manufacture of tyres with the Durgapur people, because they do not make tyres.”

1.157. Asked whether the Railways proposed to manufacture these tyres themselves, the Member Mechanical has stated :

“Durgapur is manufacturing wheels ; and whatever they are producing, we are taking. But that is not enough ; and we have been trying to set up our own wheel-and-axle plant at Bangalore. We are not pursuing the manufacture of tyres for EMU coaches. We can provide solid tyres.”

1.158. The Committee asked whether any time-bound programme had been drawn up for the manufacture of tyres. The Member Mechanical has stated :

“The whole issue depends on the wheel and axle plant. It is a sanctioned work. But unfortunately, there has of late been a

re-appraisal of this project. We have been asked by the Planning Commission whether it should be done or not, because of the supplies that we are expecting from Durgapur. So, that issue is going on."

1.159. The Chairman, Railway Board has stated in this connection :

"Our planning is to have self-reliance in respect of these wheels and tyres. Those wheels need solid tyres, so that the tyres will not be imported, and the retyring work also will not be there. That is our planning. We had included in our plan, a wheel-and-axle plant on which some work has also been started. In the meantime, the Planning Commission is having a re-appraisal. Of course, Durgapur's production is going up. They are doing 15,000 per year. We said that they should go upto 40,000 a year; but our stand has been that even after we reach 40,000 per year, our total requirement will be such that we will require that wheel-and-axle plant. We want to do that and avoid all the import of wheels and tyres from abroad."

1.160. In a note subsequently furnished to the Committee, the Ministry of Railways have stated :

"Tata Iron & Steel Co. is the only indigenous manufacturer of tyres. The quantity of tyres indented by the Railways, quantity planned on TISCO and quantity earmarked for import during the last 3 years is indicated below :

	1974-75	1975-76	1976-77
Total quantity indented by the Railways . . . . .	41,854	58,820	59,961
Quantity planned on TISCO . . . . .	21,272	25,857	35,853
Balance quantity earmarked for import . . . . .	20,582	32,963	24,108

Tyres indented by the Railways are for steam locos. Carriage & Wagon and EMU application. The capacity of Tatas is particularly deficient in regard to M.G.C&W tyres and EMU tyres. The requirements of M.G. Carriage & Wagon tyres are quite considerable. In earlier years, these tyres were being imported from East European Countries, i.e., Nikex/Hungary & Kol-mex/Poland against rupee payment. Their prices were very competitive. However, lately the prices quoted by them have also increased and consequently we have started taking in lieu solid wheels manufactured by Durgapur, which on cost to cost

basis work out even more economical. This has become possible due to increase in the production at DSP in the post emergency era.

Tyres for application on Electrical Multiple Units require oil quenching and the capacity of TISCO in respect of these tyres is quite limited. The inputs required by TISCO to augment this capacity are quite considerable and, therefore, it has not been possible to augment this capacity. Therefore, for some time more, we will have to import EMU tyres."

1.161. Referring to the supply of tyres by the Durgapur Steel Plant, the Committee enquired whether the price paid to the Plant for tyres was lower than their cost price as also the price paid for imported wheels and as a result the Durgapur Steel Plant was not going in for production of tyres or solid wheels. The Chairman, Railway Board has stated :

"We had a discussion with the Steel Ministry and other officers and we have agreed to pay them a higher price. The price is also fixed, and are paying this from 1st of April, this year. The price question has been settled with them; and we have told them : 'If you still have any dispute, there is a costing organisation of the Finance Ministry. We are quite willing to abide by its decision'. On that basis, we are paying higher price from 1st April."

1.162. The Committee asked, whether the lack of decision about the price to be paid to the Steel Plant had any effect on the production and supply of tyres by the Plant. The Member Mechanical has stated :

"The price fixation of wheels and tyres is done with the approval of the Government, based on an agreement arrived at between the producers and the Railways under the aegis of the Joint Plant Committee. These are prices which are not fixed arbitrarily, but in a joint meeting with the producers. That was how it was fixed in the past. It was acceptable to both."

1.163. The Committee learnt that the Plant had been suffering a loss of about Rs. 2,000/- per set of wheels supplied to the Railways as the Railways refused to pay the Plant even cost of production. During evidence when the Committee enquired about the factual position, the Chairman, Railway Board has stated :

"There is one point in the matter or pricing of these wheels. There is a dual pricing policy of steel by the Government of India. *i.e.*, for the steel ingots that are used for making things for

public sector or for Government Departments, there is one price; there is a different price for public consumption. We had been agreeing to their price increase based on the escalation, *i.e.*, the base price as agreed to for the government parties, that is whatever be the JPC price, plus whatever escalation that had taken place from time to time. We have always stood by the principle that if they do not agree to what we say that they should have, the costing organisation of the Finance Ministry can be approached; and that we will abide by its decision. In April this year—or May—we had a meeting. They said that they should have some *ad hoc* increase. We gave them; and we are abiding by the decision that we will buy according to the price fixed by the independent costing agency.”

He has added :

“Perhaps because the price increase was not agreed to for 1 or 2 years, their loss might have increased. But I do not think they curtailed their production in any way because of that. The production has now been going up steadily and from 8,000 they are coming up to 15,000 this year. And if they do not agree to our price, we are ready to have discussions on this.”

1.164. It is seen from paragraph 27 of the 29th Report of the Committee on Public Undertakings (Third Lok Sabha) that in order to meet the requirements of the Railways for wheels and axles, a Wheel and Axle Plant having a rated capacity of 57,000 tonnes per annum was set in Durgapur Steel Plant. The production in this plant has been much lower than the rated capacity. Paragraph 3.53 of the First Report of the Committee on Public Undertakings 1971-72 mentions that the low production in Wheel and Axle plant also affected the production of rail coaches and wagons. As against their annual requirements of about 45,000 wheel sets the number of wheel sets actually produced was much less. In this connection, Committee's attention has also been drawn to the following news-item which appeared in the *Economic Times* of 10 June, 1977 :

“The woes of the Durgapur Steel Plant are proposed to be overcome through a surgical operation by transferring the wheel and axle unit to the railways. The Planning Commission is understood to have given the green signal for the railways to set up a wheel and axle plant as a captive unit.

The Durgapur Plant which has been designed to cater mainly to the railways has been incurring losses year after year. The plant authorities have been complaining that the railways being the

only buyer have been exploiting them by paying unremunerative prices.

The railways have been giving them a price of just Rs. 2,750 per wheel set while it costs near three times to the plant. The imported price of a wheel set is even higher around Rs. 10,000.

There has been a continuous dialogue over the price between the steel plant and the railways. But it has been a futile effort on the part of the steel authorities and the issue has not so far been sorted out.

The railways claim that the cost of production of the unit should be worked out at its full production capacity. The railways claim that the cost of production for wheel set can be brought down by half if the unit works to its full capacity.

At the same time the plant has been claiming that it can work to its full capacity only if the railways place enough orders with them. Against the potential capacity of 40,000 wheel sets per annum, the order booked with the unit has been only of the order of 10,000 sets. Besides the orders have also not been placed for complete sets as the railways have the capacity to assemble them in their yards.

The railways have also been importing about 26,000 wheel sets every year at a cost of about Rs. 27 crores. On the other hand, the DSP has been subsidising the railways every year on the supplies by over Rs. 10 crores.

Several committees have also gone into the wrangle between the railways and the Durgapur Steel Plant. The Committee appointed by the Steel Ministry some time back has found that the cost of production of wheel sets at the Durgapur Steel Plant is almost equal to the imported price. They have felt that the Durgapur Steel Plant supplies to the railways have been underpriced. Though some price increase has been given by the railways it has never neutralised the cost completely.

There has been a proposal for modernisation and diversification of the wheel and axle unit at the Durgapur Plant. But it again depended on the price that the railways will be willing to pay to get a clearance for the project.

So finally disgusted with the attitude of the railways, the Durgapur Steel Plant authorities offered to the railways to have their



own wheel and axle unit as a captive unit. The railways have also shown willingness to take up the project provided the Planning Commission finds them the capital cost for the project. The commission is understood to have cleared the proposal. But the financing of the project is still under discussion."

1.165. An order was placed in March, 1971 on a Belgium firm for manufacture and supply of 3604 tyres required for Electric Multiple Unit (EMU) coaches on Eastern, Central and Western Railways. The global tenders for the procurement of these tyres were issued for advertisement on 26 November, 1970 and opened on 16 January, 1971. In April, 1971 the RDSO advised an amendment to the specification of the incidental alloying elements for these tyres and when in May, 1971, the Ministry of Railways requested the firm to supply the tyres according to the amended specification, the firm declined to accept the change in specification for the reason that the manufacture of tyres was already in progress.

1.166. The Committee have since been informed that following the cases of cracking of EMU tyre supplied earlier from Japan, during the year 1968-69 on the South Eastern Railway, the RDSO had been making detailed studies and investigations over a period of about two years in the causes of the incidence of cracked tyres. As a result of these investigations the RDSO had suggested an amendment to the specification which had the effect of restricting the percentage of chromium content used in EMU tyres to 0.15. The Committee are unable to understand how the Ministry of Railways could invite a global tender for the supply of EMU tyres of a particular specification knowing fully well that the RDSO was engaged in investigations on the incidence of the cracked tyres which had been supplied earlier from Japan. In view of the fact that the specifications for the EMU tyres had to be amended on the basis of the investigations conducted by RDSO, the Committee feel that the Ministry of Railways should have consulted the RDSO before issuing the global tender which they did on 26 November, 1970, i.e. some four months before the RDSO advised amendment to the specifications. The Chairman, Railway Board has conceded during evidence that consultation with RDSO could have been better. That the investigations being carried out by the RDSO were not of a routine nature is borne out by the fact that when the offer of the firm to supply tyres with 1.1 per cent to 1.4 per cent chromium content was referred to RDSO, the latter rejected the offer and insisted that the specification as amended by them be adopted. It has also been stated that the tyres conforming to the amended specification of RDSO have not given any trouble. This vindicates the position that if RDSO had been consulted before the

floating of tenders, the inconvenience and financial loss suffered as a result of defective supplies of tyres by the Belgium firm could perhaps have been averted.

1.167. The Committee also feel that there has been a communication gap between the RDSO and the Ministry of Railways even though it has been claimed that the Ministry of Railways are continuously in touch with the activities of RDSO. It is seen that the RDSO had come to the conclusion some time in February, 1971 that an amendment to the specification of EMU tyres was necessary. However, this was communicated to the Ministry of Railways in April, 1971 after the placement of the contract. If the amendment to the specification had been communicated before the Ministry of Railways had finalised the contract with the Belgium firm on 31 March, 1971, it would have enabled the Ministry of Railways to have the changes in the specification incorporated in the agreement. The Committee regret that neither the Ministry of Railways nor RDSO took initiative in this respect. The Committee would like the matter to be thoroughly gone into, fix responsibility for the lapse and devise remedial measures to obviate recurrence. The Committee would like to be informed of the action taken.

1.168. The Committee note that the Ministry of Railways requested the firm in May, 1971, i.e. within less than two months of the acceptance of the offer of the firm to supply the tyres according to the amended specifications but the firm declined to accept the change in specifications for the reason that the manufacture of tyres was already in progress. The Committee further note that although under clause 8 of the General Conditions of Contract, the Ministry of Railways could have negotiated with the firm for alteration in the specifications, they did not pursue the matter feeling that a change in specification would infringe the World Bank guidelines in regard to IDA credit under which the procurement was ordered. Surprisingly enough, instead of putting pressure on the supplier firm for acceptance of a change in the specification which was considered essential, the Ministry of Railways agreed to reschedule the delivery period twice on the request of the firm. By doing so the Railway Board lost the opportunity of either making the supplier to agree to change in the specification or to cancel the contract without financial repercussions for tyres which were otherwise unacceptable. The Committee feel that the Railway Board has not been vigilant in safeguarding the interest of the Railways and has shown undue indulgence to the supplying firm in accepting delayed supplies of tyres made to unacceptable specification. This has resulted in a loss of Rs. 7 lakhs which in the opinion of the Committee was avoidable. The Committee desire that responsibility for this loss by failing to take advantage of firm's failure to adhere to the original contractual delivery schedule should be fixed.

1.169. It is surprising that in the present case the patent defects which could be discovered by the Eastern Railway by visual inspection could not be detected at the initial inspection either by the Inspection Agency or the Railway Adviser. The Committee have been informed during evidence that at the time of agreement with the Belgium firm for supply of tyres, no provision for ultrasonic test had been made as per practice then prevailing. The reason for this was that in the past there was no occasion for rejection on such a large scale. Since the firm had refused to make supplies to the specifications revised within a period of two months of the placing of the order, it was the duty of the Railway Board to have ensured that the tyres supplied by the firm were subjected to rigorous tests so that defective supplies could be eliminated. For that purpose it was essential for the Railway Board to have immediately asked for other forms of tests necessary, such as ultrasonic tests, to make the tyres acceptable, knowing that the chromium content of the steel used by that firm was excessive with reference to the revised specification.

1.170. The Committee have been informed that out of the total supply of 3604 tyres only the tyres which were supplied to the Eastern Railway and which were of the same cast showed defects. From the information made available to them, the Committee note that after a great deal of permission and discussion, the firm has agreed to a free replacement of 358 tyres. The matter is still being pursued with the firm. The Committee would like to be apprised of the final outcome.

1.171. The Committee would also like to know whether such of the tyres which were found defective by the Eastern Railway but were not rejected by RDSO have since been utilised.

1.172. The Committee find that in March, 1974, the Ministry of Railways wrote to the Chief Accounts Officer, High Commission of India in London to arrange to recover the full cost of the defective tyres from the outstanding bills of the firm for supplies against another contract, if the payment of the EMU tyres had already been made to them. On 24 April, 1974, the Chief Accounts Officer informed the Railway Board through a letter that they had no bills outstanding against this particular contract but that they have been able to trace out a contract of 22 June 1972 against which BF 196,964 remained to be paid to the firm. It was only on 19 April, 1975, i.e., after about a year the Ministry of Railways asked the Chief Accounts Officer to withhold this payment, which had already been authorised by the Chief Accounts Officer on 13 August, 1974. How the delay of a year in asking the Chief Accounts Officer to withhold payment ~~needs~~ needs to be investigated to fix responsibility.

1.173. The Committee also feel that after having written to the Ministry of Railways for further advice on the 24 April, 1974, the Chief Accounts Officer should have withheld authorisation of payment to the firm on 13 August, 1974. This matter also needs to be looked into.

1.174. The Committee have been informed that the firm had submitted a bank guarantee valued at BF 1,805,604 (Rs. 2.7 lakhs) which was current upto 31 March, 1977. This guarantee was to be utilised to ensure that the firm makes replacement of 388 tyres. The Committee would like to know whether the necessary replacements have since been made.

**Northern Railway—Import of spare parts for WDM-4 Diesel electric locomotives.**

*Audit Paragraph*

1.175. The Railway Administration placed an indent in March, 1973, on India Supply Mission, Washington, for procurement of three numbers dwelling assembly, six numbers frame assembly and six numbers bolster assembly for WDM-4 Diesel electric locomotives at an estimated cost of \$ 63,799 (Rs. 4,78,493). These items, being proprietary, were to be purchased from a firm of U. S. A. Out of foreign exchange allocation of \$ 63,799 sanctioned by the Railway Board in October 9, 1972, 56,964 were earmarked for the cost of these spare parts and \$ 6,835 for freight and insurance charges.

1.176. The India Supply Mission, (I. S. M.) Washington, informed the Northern Railway Administration on 29th May, 1973 (letter received on 20th June, 1973) that the prices of all the three items exceeded the estimated cost by 15 per cent and that the catalogue numbers were different for two items, namely, dwelling assembly and frame assembly, from those indicated in the indent. It was specifically mentioned in the communication of the I. S. M., Washington, that quotation would expire on 22nd August, 1973. The Railway Administration advised the revised requirement of two numbers dwelling assembly, four numbers frame assembly and four numbers bolster assembly, within the available foreign exchange on 1st August, 1973. The I. S. M., Washington, cabled back on 3rd August, 1973 that the foreign exchange was not sufficient to cover the cost inclusive of freight and that the position should be reviewed by 15th August, 1973 since the offers were expiring on 20th August, 1973. The Railway Administration again revised their requirements to three numbers dwelling assembly, three numbers frame assembly and four numbers bolster assembly only on 31st August, 1973, by which time the offer had expired.

1.177. Fresh offers from the same firm of 12th December, 1973 were higher for two of the three items, and in order to keep the expenditure within

the amount of foreign exchange initially released, orders were placed in February, 1974 for three numbers dwelling assembly, two numbers frame assembly and four number bolster assembly each at the rate of \$ 4212.60, \$13,662.60 and \$4,559.60 respectively against original quotation of \$ 4212.60 \$ 10,836 and \$ 3030.36. The purchase order placed by the I. S. M., Wasington, in February, 1974 was not accepted by the firm on the ground that the letter of credit had not been opened by the I. S. M. Wasington, within the validity period, namely, 12th March, 1974. The firm was asked on 10th September, 1974 to quote again. The offers received in October, 1974 were still higher and not only the prices of the stores were increased but also the incidental charges which were raised from 9.67 per cent to 12 per cent. The quantities were again revised to 2 numbers each of dwelling, frame and bolster assemblies. The total increase in expenditure on the quantities now ordered would be \$ 22,907.33 (or Rs. 1,46,742).

1.178. The Railway has also sustained indirect loss on account of delay in the receipt of spare parts. It is estimated that every month 8 locodays and 192 manhours are being lost because the locomotives remain in sheds during scheduled overhauls for longer periods than is warranted as the locomotives which come for periodical overhauls are fitted with damaged assemblies (as dummies) to enable repairs being undertaken and working assemblies taken from such locomotives are fitted to outgoing locomotives in order to make them fit for service.

[Paragraph 12 of the Report of the Comptroller & Auditor General of India for the year 1974-75, Union Government (Railways).]

1.179. The following statement gives details of the number of spare parts indented from time to time and their cost in terms of foreign exchange :

March 1973 (Original Indent)

Name of the spare part	Nos.	Estimated cost
Dwelling Assembly . . . . .	3	
Frame Assembly . . . . .	6	\$ 63799
Bolster Assembly . . . . .	6	
<b>1st August, 1973 (1st Revision)</b>		
Dwelling Assembly . . . . .	2	
Frame Assembly . . . . .	4	\$ 63,799
Bolster Assembly . . . . .	4	
<b>31st August, 1973 (2nd Revision)</b>		
Dwelling Assembly . . . . .	3	
Frame Assembly . . . . .	3	\$ 63,799
Bolster Assembly . . . . .	4	

Name of the spare part	Nos.	Estimated cost
<b>February, 1974 (3rd Revision)</b>		
Dwelling Assembly . . . . .	3	
Frame Assembly . . . . .	2	\$ 63,799
Bolster Assembly . . . . .	4	
<b>October, 1974 (4th Revision)</b>		
Dwelling Assembly . . . . .	2	
Frame Assembly . . . . .	2	\$ 63,799 +
Bolster Assembly . . . . .	2	\$ 22,907.33
		\$ 86,706.33

1.180. The Committee learnt that the Railway Administration had requested the Railway Board on 15 October, 1971 for the release of foreign exchange for import of spares. The Committee desired to know whether the spares mentioned in Audit Paragraph were required on replacement account and if so when was its need felt and when the indent was placed by the consuming department (Locoshed). The Ministry of Railways have in a note, stated :—

“The spare assemblies were required on replacement account. The need was felt by the consuming department in August, 1971 after spare bogies had got damaged and the demand was placed in September, 1971.”

1.181. The Committee enquired about the time taken at different stages for processing the indent and obtaining foreign exchange allocation. In reply, the Ministry of Railways have stated :—

“Time taken for processing the indent and obtaining foreign exchange was about 1½ years. Different stages for processing indent and release of foreign exchange are given below :—

- 15.10.1971 Board approached for release of foreign exchange.
- 24.11.1971 Clarification sought by Board and furnished on 29.11.1971.
- 10.10.1972 Foreign exchange sanction received from Board.
- 16.3.1973 Indent placed on ISM/Washington getting the demand vetted from associated Finance.”

1.182. The Audit Para states that the India Supply Mission, Washington, informed the Northern Railway Administration through a letter dated

29 May, 1973, that the prices of all the three items indented exceeded the estimated cost by 15 per cent and that the catalogue numbers were different for two items, namely, dwelling assembly and frame assembly from those indicated in the indent. In this context, the Committee desired to know the factors that contributed towards increase in the prices to the extent of 15 per cent over the estimated cost and the reasons as to why the catalogue numbers given in the indent in respect of the two items happened to be different. The Ministry of Railways have explained :—

“The estimated cost was based on the firm’s latest available price list of 1970 and the prices given in the price list are not firm, and are subject to change. The increase of more than 15 per cent over a period of 3 years is due to rise in prices claimed by the firm. The difference in part Nos. was due to typographical error.”

1.183. The Audit Paragraph brings out that India Supply Mission, Washington’s letter of 29 May, 1973 was delivered to the Northern Railway on 20 June, 1973. Explaining the reasons for the delay in delivering the letter to the Northern Railway, the Department of Supply has stated as follows :—

“It has been learnt from the Ministry of External Affairs (who claim to have a photostat copy of the Way Bill) that the letter in question was despatched by the ISM, Washington on the 31st May, 1973 through Diplomatic Bag which was received in the Supply Department on the 5th June, 1973.

The Diplomatic Bag used to contain a Way Bill in duplicate. One copy of the Way Bill used to be retained in the Supply Department and the other copy used to be returned to the ISM, Washington duly signed in token of having received the contents of the Bag.

On opening the Bag the local dak used to be distributed through messenger (Peon) books. The letter to N. Rly. would have also gone through the Messenger Book.

The Way Bills being in the nature of ‘Invoices’ as defined in para 11 (1) of the Central Secretariat Manual of Office Procedure (1972 Edition) were retained only for one year as per Retention Schedule given in Appendix 22 of the said Manual. The retention

period prescribed for the Messenger Books is also one year. Thus both the relevant Way Bill and the relevant Messenger Book have already been destroyed.

In the absence of the Way Bill and the Messenger Book it is not possible to say whether in fact the letter in question was delayed in the Supply Department and if so, what were the circumstances which led to such delay."

1.184. The Audit para further points out that the India Supply Mission, Washington's communication dated 29 May, 1973 had specifically mentioned that the quotation would expire on 22 August, 1973. However, the Railway Administration advised the revised requirements of the spares only on 1 August, 1973. The Committee enquired about the reasons as to why it should have taken 41 days to send a reply on 1 August, 1973, to a communication dated 29 May, 1973 (received on 20 June, 1973). In reply, the Ministry of Railways have stated :

"Since the foreign exchange required was considerably higher than already provided for, a drastic reduction in the quantities was called for. This required detailed examination of the matter in consultation with the indenter's representative and in the Head Quarters Office. This took some time and the cable reply could be sent on 1-8-73 only which was still 22 days before the expiry of the quotation."

1.185. It is further seen from the Audit Paragraph that on receipt of the revised requirements of the spare parts, the India Supply Mission, Washington had cabled back to the Northern Railway Administration on 3 August, 1973 stating that the foreign exchange was not sufficient to cover the cost inclusive of freight and that the position should be reviewed by 15 August, 1973 as the offers were expiring on 20 August, 1973. In spite of this cable, the Railway Administration could revise their requirements only on 31 August, 1973 by which time the offer had expired. In the light of these facts, the Committee desired to know whether the element of freight and insurance was taken into account while assessing the revised requirements of spare parts as advised to the India Supply Mission, Washington on 1 August, 1973 and if not, what were the reasons for omission of these charges. The Ministry of Railways have, in a note, stated as follows :—

"Ocean freight and insurance were not taken into account while assessing the revised requirements as advised to India Supply Mission on 1-8-73 as these were not included in the total foreign exchange as per firm's quotation as conveyed by India Supply Mission in their letter of 29-5-1973. It was also thought that any



changes on these accounts would be less than the 15 per cent margin normally allowed by India Supply Mission. Any reduction of even one spare assembly would have meant under utilisation of sanctioned foreign exchange."

1.186. When asked as to why it was not possible for the Northern Railway Administration to review the position by 15 August, 1973 and advise the results to India Supply Mission, Washington before the expiry of offers on 20 August, 1973, the Ministry of Railways have stated :—

"Although reduction in the quantities was finalised in consultation with the indenter by 13-8-73 but thinking that no valid contract could be concluded within the validity period due to insufficient time left for opening of letter of credit, it was left to the Director General, India Supply Mission, Washington to take action on Railway's earlier cable of 1-8-1973 which authorised him to place contract upto the available foreign exchange after considering all aspects. However, since a further cable was received from India Supply Mission on 22-8-1973, the reduced quantities were intimated."

1.187. The Committee desired to know whether the Railway Administration had not authorised the India Supply Mission, Washington to cover the items within the available foreign exchange. In reply, the India Supply Mission, Washington, have stated as under :—

"There were no standing instructions to India Supply Mission by the Railway Administration to cover items within available amount of foreign exchange if quoted prices exceeded available funds. The cable received from the Northern Railway was still not clear and the foreign exchange was insufficient even to cover the reduced quantities.

They have further stated that Northern Railway's Cable received by them on 2 August, 1973 read as below :—

"REFER YOUR LETTER C-7246/43/IDA OF MAY 29 PLACE ORDER FOR 2 NUMBERS OF HOUSING TO PART 8289502 FOR FOUR NUMBERS OF FRAME TO PART 8311174 AND FOR 4 NUMBERS OF BOLSTER TO PART 8257788 WITHIN AVAILABLE FOREIGN EXCHANGE COMMENTS FOR THE BALANCE WILL FOLLOW-NORTHRAIL"

The interpretation of the cable was taken to be that the quantities as reduced and intimated to them could be procured within the

available foreign exchange. This was precisely not the position and the foreign exchange available with the indent was still not sufficient to cover the advised/revised quantities. Therefore it was necessary to make another reference to Northern Railway for making available the necessary amount of foreign exchange.

The Ministry of Railways, however, hold the view that the cable referred to above authorised India Supply Mission, Washington to cover the requirements within the available foreign exchange and therefore quantity could have been reduced by India Supply Mission to enable coverage within the availability of foreign exchange if it were not possible to cover the quantity indicated in the cable."

1.188. The Committee enquired whether the India Supply Mission, Washington could not have revised the requirements on its own so as to keep the value within the foreign exchange allotted. To this, the India Supply Mission, Washington have replied as under :—

"It is not normally the function of India Supply Mission to reduce quantities without prior approval of indentors. India Supply Mission, Washington at that time was not authorised by Northern Railway to reduce the quantity on their own and adjust purchases within the available amount of foreign exchange. There are now standing instructions from the Railway Board that whenever foreign exchange falls short India Supply Mission will carry out corresponding reduction in the quantity if possible to adjust the purchase within available foreign exchange as well to utilise the available bids."

1.189. In this context, the Ministry of Railways have elucidated :—

"Ministry of Railways hold the view that in terms of Northern Railway's cable dated 1 August, 1973, India Supply Mission, Washington could have reduced the quantity to enable coverage within the available foreign exchange. Besides this, India Supply Mission could have taken action to at least cover the quantities within the available foreign exchange and could have kept an optional clause for marginal adjustment in the quantities as and when additional foreign exchange were made available."

1.190. The Audit paragraph states that the purchase order placed by India Supply Mission, Washington in February, 1974 was not accepted by the firm on the ground that the letter of credit had not been opened by the India

Supply Mission within the validity period namely the 12 March, 1974. The Committee enquired when the letter of credit was opened as also the explanation given by India Supply Mission, Washington for not opening the letter of credit within the validity period. The Ministry of Railways have stated :—

“ISM have advised that the contract was placed on 2 February, 1974,

The normal period taken by the Accounts Office for opening of letter of credit was one week but in the case of letters of credit under Class VI procedure of IDA loan, the normal period was three weeks. In this particular case, the Accounts Officer requested the State Bank of India, New York to open a letter of credit on March 13, 1974. There was a gap of more than one week but this mainly due to seven non-working days intervening between the date of placement of contract and the date of request to the Bank for letter of credit. There was also no undertaking in the contract in regard to the establishment of letter of credit within a time limit.

The State Bank of India's letter of credit in favour of the firm on March 18, 1974 was subject to qualified agreement to reimburse being received from the IDA. This conditional letter of credit was a normal feature wherever case VI procedure was involved. The agreement to reimburse was issued by the IDA on 3-4-1974. The firm objected to the letter of credit on 4-6-1974 not only on the ground of expiry of validity of quotation but also against various provisions in the letter of credit which were standard terms incorporated in all similar letters of credit opened under case VI procedure of the IDA. The objections against standard terms raised by the firm in earlier cases. The main reason for the firm taking a different attitude this time was due to administrative changes which were taking place in their organization. The question of litigation with the firm was also considered but the same was not found to be prudent action. However, with discussions held with the firm, it became possible to do away with the system of letter of credit and the firm are now quoting payment terms within 30 days against documents. This has eliminated recurrence of such situations in future”.

1.191. The Committee desired to know the financial effect of the locomotive days lost and the extended repair hours wasted on account of delays in replacement of damaged parts. The Railway Board have, in a note, stated :

“192 man-hours roughly are lost per month on account of non-availability of frame assembly”.

1.192. Asked if the indent involving use of foreign exchange was originally prepared on a realistic basis and if so, how the same could be so drastically reduced later from time to time depending on the availability of foreign exchange, the Ministry of Railways have replied :—

“The demand originally prepared was on realistic basis. There was, however, no alternative except to reduce the quantities in order to cover the demand within the sanctioned foreign exchange available to avoid loss of time in obtaining additional foreign exchange.”

1.193. According to the Audit Paragraph the items actually purchased were less than the original requirement. In view of this, the Committee desired to know how the balance requirements have been met and at what cost. The Ministry of Railways have, in a note, stated :—

“The quantities had to be reduced to fit within the available foreign exchange. The procurement for the balance quantities is already in process. At the same time possibility of repairs to damaged bogies in the Railway workshop/CLW was explored and two damaged bogies have been sent to CLW for repairs as a trial measure.

Manufacture of one set of proto-type high speed bogies is also in hand in DLW.”

1.194. The Committee note that the Northern Railway Administration placed an indent in March, 1973 on India Supply Mission, Washington for procurement of some spare parts for WDM-4 Diesel Electric Locomotives from a firm in USA. The Committee have been informed that the need for the spares, which were required on replacement account, was felt by the consuming department as far back as in August, 1971. The time taken for processing the indent and obtaining foreign exchange was about 1-1/2 years. In view of the fact that in the absence of these essential spares the locomotives had necessarily to suffer detentions in workshops for longer periods than is warranted, the Committee would like the Railway Board to critically review this case with a view to find out if the time taken in processing the indent was the barest minimum and if not, what remedial measures need be taken to obviate delays.

1.195. The Committee further note that although the indent had been placed on the India Supply Mission, Washington in March, 1973, orders for

the spares could be placed on the supplier firm some time after October, 1974, even though the items to be procured were of a proprietary nature and had to be purchased only from one particular firm. It is seen that between the dates of placing indent on ISM, Washington and of placing orders on the firm, lot of time was taken in avoidable correspondence involving several references between the ISM Washington and the Northern Railway Administration. The Committee feel that if clear-cut instructions in regard to the minimum requirements of the spares which could be brought within the amount of foreign exchange initially released, had been given by the Railway Administration, the ISM, Washington would not have been obliged to seek specific orders on more than one occasion in regard to the number of spare parts to be purchased. Further, the Northern Railway Administration, while replying to the first reference made by the ISM, Washington on 29 May, 1973, took unnecessarily a long time in conveying their revised requirements with the result that the period upto which quotations were kept open by the firm viz. upto 22 August, 1973 had expired. It is further seen that after the Railway Administration had conveyed their requirements on 31 August, 1973 the ISM, Washington could place the orders for those spares only in February, 1974 and that too on higher rates. This order was, however, not accepted by the firm on the ground that the letter of credit had not been opened by the ISM, Washington within the validity period. As a result thereof fresh offers had to be invited again. Thus there has been delay at various stages which ultimately had the effect of enhancing the total expenditure on the reduced quantity of spares by more than Rs. 1,46,742. The Committee cannot but deprecate incurring such increased expenditure which could have been avoided, if the case had been handled more carefully and expeditiously.

1.196. The Committee are also concerned to note that the Railways also sustained indirect loss on account of delay in the receipt of spare parts. It is estimated that every month 8 locodays and 192 man-hours were lost because to locomotives remained in sheds during scheduled overhauls for longer periods than was warranted. The Committee desire that the Ministry of Railways should review this case in conjunction with the ISM, Washington with a view to streamline the procedures involved in processing of indents and placing of orders in the light of the deficiencies and lapses which came to notice in the present case. The precise action taken in this behalf may be intimated to the Committee.

#### **Eastern Railway—Procurement of screw couplings**

##### *Audit Paragraph*

1.197. In August, 1972, the Director General, Supplies and Disposals entered into a running contract with a Calcutta firm for supply of 6,068

screw couplings to the Stores Depots of Eastern Railway at Liluah and Halisahar at the rate of Rs. 170 each plus sales tax. The supplies were to be completed by 30th June, 1974. Between July, 1973 and August, 1974, the firm delivered 5,900 screw couplings to these Depots duly inspected by the Director of Inspection of the Director General, Supplies and Disposals. On the basis of proof of inspection and despatch, Rs. 10,07,699 representing 98 per cent of the value of the materials were paid to the firm during August, 1973 to June, 1974.

1.198. Some representative samples were drawn in January, 1974 from the supplies received at Liluah and these were sent to the Railway workshop at that station for test. The test report available in April, 1974 disclosed that the materials were unsuitable due to major dimensional defects. Two months later, the defect was confirmed in a joint inspection carried out by the representatives of the firm, the Railway and the Director of Inspection. The entire quantity (4,000 screw couplings) supplied to Liluah stores depot was rejected by the Railway on 25th June, 1974 and the firm was advised accordingly. However, on the suggestion of the Director of Inspection, the firm was given a chance to sort out 200 to 250 screw couplings out of the rejected lots to see if any of them conformed to specification and the Railway could accept the same for use. The firm sorted out 500 couplings but in the joint inspection carried out on 18th July, 1974 these materials were again rejected. Subsequently, two more opportunities were given to the firm in August-September, 1974 but the materials could not be accepted owing to their unsuitability. According to the record note of joint inspection conducted on 19th September, 1974, most of the sorted out materials were not in accordance with the governing drawing.

1.199. Similar defects were noticed in the supplies received at Halisahar Stores Depot during February-August, 1974 and they were rejected straight-away and the firm was informed on different dates between April and December, 1974.

1.200. The Director General, Supplies and Disposals was advised of the defects in the supplies first in June, 1974 and again in November, 1974 and January, 1975. However, the Railway Administration did not notify its intention to make purchases of the material at the risk and cost of the firm. The Pay and Accounts Officer, Calcutta, who was requested from time to time during May to December, 1974 to recover the payment already made to the firm, succeeded (till November, 1975) in withholding its dues to the extent of about Rs. 1.38 lakhs against payment of about Rs. 10.08 lakhs. The Railway Administration stated (January, 1976) that the Pay and Accounts Officer, Calcutta, has so far recovered Rs. 6.57 lakhs.

1.201. To meet the pressing demands of Liluah and Kancharapara workshops, the approval of the General Manager was obtained in June 1974 and February 1975 for direct purchase of 3,300 couplings at the rate of Rs. 450 each. This entailed extra expenditure of Rs. 9.24 lakhs. In the absence of notification of the Railway's intention to purchase these materials at the risk and cost of the firm, it is doubtful whether this extra expenditure would be made good by the firm.

[Paragraph 19 of the Report of C&A.G. for the year 1974-75 on Railways]

1.202. According to the Audit Paragraph the first supply of screw couplings was received in July 1973 but samples for test were drawn in January 1974 i.e., after the nearly six months. The test report was available in April, 1974. The Committee asked the reasons for taking such a long time to have the materials tested. The Ministry of Railways have, in a note, stated :

“At that period there was a C.B.I. case in respect of supply of screw couplings made by M/s. Ajay Industries and only when the final clearance was received in December, 1973, could the samples from the lot be taken and sent to shops for test and report. Hence the supplies received between July 1973 and January 1974 could be tested only in January 1974.”

1.203. In a clarification given at the instance of Audit, the Ministry of Railways have further stated :

“Although the C.B.I. case related to a contract other than the contract dealt with in the above Draft Para, it is to be appreciated that since in both the cases the supplier and the materials were the same, the Depot Officer had to become very cautious in initiating action regarding test of the materials supplied by the firm against the subject A/T (Acceptance of Tender).”

1.204. The Committee have learnt from Audit that the following defects were noticed in the couplings supplied by the firm :—

- (i) Shackle was found to be 46 mm in thickness in place of 40 mm.
- (ii) The thickness of the boss of the links was found to be  $2\frac{1}{2}$  mm. above what is prescribed in the drawing (32 mm).
- (iii) The links were found to be loose in certain cases.
- (iv) In some of the cases, flashing tool marks were found in the links.
- (v) In some of the cases counter-weight lever strap has been tack-welded in place of continuous weldings.”

1.205. It is seen that the screw couplings were found unsuitable due to major dimensional defects and not being in accordance with the governing drawing. The Committee enquired as to how the materials were passed by the Director of Inspection, Calcutta when they did not conform to the specification drawing. They also desired to know the reaction of the Department of Supply in regard to the inspection carried out by the Director of Inspection. In this connection, the Department of Supply have, in a note, stated :

“The matter is under examination from the Vigilance angle ; comments can be given when such examination is completed. This will be done as quickly as possible.”

1.206. The Director General, Supplies and Disposals was advised by the Railway Administration of the defects in the supplies first in June, 1974 and again in November 1974 and January, 1975. The Committee enquired about the action taken by the Director General, Supplies and Disposals on these letters. The Department of Supply have intimated as under :—

“The registered letter dated 20th June, 1974 from the Deputy Controller of Stores, Eastern Railway, Lillooah addressed to Dy. Chief Pay & Accounts Officer, Calcutta and copy to DGS&D, stated that 4,000 Nos. of Screw Couplings had been jointly inspected on 19-6-1974 alongwith the representative of the Director of Inspection and found to be not conforming to the dimensions as per drawing. Details of the defects were not given. The letter further stated that the materials were under rejection. No rejection Note had been asked to recover 98 per cent cost. While the DGS&D wrote to the Director of Inspection on 2-8-1974 about his comments on the Railway's complaint of inability of this firm to supply Screw Couplings to specification, it is observed from a letter dated 9th August 1974 from the Director of Inspection, Calcutta addressed to Dist-Controller of Stores, E. Rly., Halishehar that the matter regarding complaint in respect of store supplied for Lillooah consignee was still being settled with the Controller of Stores, Eastern Railway and that further joint inspection had to be undertaken even after 9th of August 1974. There was, therefore no immediate cause for recovery of the 98 per cent amount. The Pay & Accounts Officer, however, confirmed in his letter dated 10-9-1974 that the recovery till that time could be made because no bills from the firm had been received. DGS&D discussed the matter with the firm's representatives on 30-10-1974 and as a result of these discussions the firm agreed to re-supply the material after necessary rectification in lots. The Controller of Stores, Eastern Railway was thereafter addressed



on 15-11-1974 to intimate the details of the dates when these materials were rejected by consignee in order to determine the legal position.

When the details of rejections etc. were received with the Railway's letter dated 20-11-1974, it was noticed that the rejections had not been conveyed within the time limit of 45 days or prescribed in the General Conditions of Contract. The supplies were made between July 1973 and January 1974 and the first complaint was made in the letter dated 20-6-1974 even that letter stated that the stores were "under rejection".

The letters written by the Railways in January 1975 merely gave details of despatches and rejections, and no special action on them was required."

1.207. In a note, the Ministry of Railways have stated :

"In this particular case, the details of rejections could not be conveyed to the supplier within the time limit of 45 days initially because testing itself was held over. Even after the materials were sent to the Shops for testing, it took naturally some time for the Shops to finalise their test reports, items like Screw Couplings being of a complicated nature."

1.208. The Committee desired to know whether risk purchase can be resorted to in respect of supplies which are passed in inspection by the Director of Inspection but which are rejected by the consignee and if so, what formalities are to be observed by the consignee. In a note, the Ministry of Railways have stated :

"The following formalities are required to be observed by the consignee in this regard :

- (i) If the consignee finds the material not according to contract specification, he should notify the fact to the firm and Director of Inspection.
- (ii) Thereupon, a Joint Inspection is held by the representatives of Director of Inspection and consignee to re-inspect the material.
- (iii) If, after the Joint Inspection the plea of consignee is upheld, the consignee reports the rejection to the DGS&D for initiating further action to arrange acceptable supplies from the firms or enforce remedies prescribed in the contract which, among other things, include resorting to risk purchase at the risk and cost of the firm."

1.209. The Department of Supply have informed the Committee that "the formality which the consignee has to observe consists of formal rejection of the Stores, and intimation of such rejection to the supplier within forty-five days of delivery of the store to the consignee."

1.210. The Audit Paragraph points out that while intimating the defects in the supplies, the Railway Administration did not notify its intention to make purchases of the material at the risk and cost of the firm. Explaining the reasons for this, the Ministry of Railways have, in a note, stated :

"The validity of this contract was initially upto 31-7-74 and subsequently DGS&D had extended the delivery period upto 31-7-75. After supplies were rejected in June, 1974 DGS&D was advised of the rejection. At this stage the Railway's concern was how to arrange supplies for the maintenance requirements from elsewhere. The question of notification by the Railway to DGS&D of its intention to make purchase at the risk and expense of the firm could arise only when the delivery period of the contract was over and it could be reasonably concluded that even if additional time was allowed the firm would not be able to arrange supplies as per specification. In fact, DGS&D cancelled the contract at the risk and cost of firm in May 1975 under letter No. SR-4/Rgc/8622/1/348/2190 dated 28-5-75. The Railway was not in a position to wait up to this period and hence supplies were arranged under Railway's own powers for meeting the demand."

1.211. With reference to the Ministry of Railway's note above, the Audit have pointed out :—

"The extension of delivery date up to 31-7-75 was granted by DGS&D in January 1975 only. The proposal for procurement of 3 month's requirement of screw couplings through special limited tender was initiated in May 1974 and General Manager's sanction was obtained in June 1974. At this stage the DGS&D contract had not been extended upto 31-7-75. It is also noticed that 'finance' branch had advised in June 1974 that the loss arising out of defective supply made by M/s. Ajay Industries Limited should be reported by C.O.S. to the appropriate action. It would appear that there was adequate time to send intimation to the DGS&D so that 'risk purchase' could have been made. As the Railway Administration did not initiate action for risk purchase in June, 1974 the argument that DGS&D cancelled the contract in May, 1975 only and Railways could not wait up to this period does not seem to be convincing."

1.212. In this connection, the Ministry of Railways have, in a note, further stated as under :—

“Against the subject A/T of the DGS&D the initial validity of the contract was upto 31-7-74. On account of failure of the supplier to make acceptable supplies within the delivery period the stock position had become acute and in order to avoid “stock-out”, procurement action for 3 months’ requirement against “Red Slip” was initiated in May/June, 1974. The actual purchase was, however, made only in February 1975. In between these two dates i.e. 31-7-74 (delivery period of DGS&D’s A/T) and 7-2-75 (direct purchase by the Railway), the DGS&D had been intimated vide Wire dated 20-6-74, Dy. COS/Liluah’s letters dated 20-6-74 and 19-7-74 and this office letter dated 20-11-74 that the supplies made by the firm had been rejected resulting in serious scarcity of this vital and safety material on the Railway. In the last letter the DGS&D was requested to take effective action against the defaulting firm and to further ensure that immediate supplies were received. This Railway had expected that DGS&D would either attempt with the firm to make necessary supplies or take risk purchase action against them as per rules. It would however, be noted that the DGS&D in spite of knowing the position fully extended in January 1975 the delivery date of the A/T upto 31-7-75. Since the direct purchase materialised in February, 1975 i.e. after the delivery period of the DGS&D’s A/T had been extended, the DGS&D could not be asked to take risk purchase action against the A/T holder at that stage. It was for the DGS&D to have consulted the Railway formally before considering the extension to the supplier and in the absence of knowledge of any action on the part of DGS&D to cancel the contract at the risk and cost of the defaulting firm, it was not possible for the railway to abandon their direct purchase efforts in the interest of railway operations.”

1.213. Apart from the extra cost involved in the direct purchase of screw couplings, the Committee desired to know what other damages are recoverable from the firm and whether the Railway claimed such general damages. In a note, Ministry of Railways have stated :

“The purchases arranged by the Railways were to meet their immediate requirements within the currency of the DGS&D’s contract on M/s. Ajay Industries which was cancelled only on 28-5-75 and therefore the question of recovery of extra cost on these purchases does not arise. As regards the recovery of general

damages from M/s. Ajay Industries only the DGS&D who are a party to the contract can make the claim."

1.214. The Department of Supply have, in this connection, stated as under :

"General damages are recoverable in this case from the firm. The DGS&D have issued Trade Enquiry to ascertain market rate on the date of breach of contract so as to prefer their claim for general damages on the firm."

1.215. The Committee were informed by Audit that the validity of the contract was extended by DGS&D upto 31st July, 1975. As to the present position in respect of recovery of the balance amount from the firm, the Department of Supply have, in a note, stated :

"The validity of the Running contract was sought to be extended by the issue of a performance notice with terminal dated 31st July, 1975. However, the firm did not accept the notice, and refused to perform the balance of the contract, which was therefore cancelled on 28-7-75. General damages are being claimed from the firm.

1.216. The Committee note that between July, 1973 and August, 1974, 5,900 screw couplings were delivered to the two Depots of the Eastern Railway at Liluah and Halisahar by a Calcutta firm against a running contract entered into by DGS&D in August, 1972. These screw couplings had been duly inspected by the Director of Inspection of the DGS&D. The Committee, however, find that after tests at the Railway Workshops, the entire supply of the screw couplings was found to be unsuitable due to major dimensional defects and not being in accordance with the specification drawing. The Committee would like to be informed as to how such sub-standard material could pass through inspection. It is rather intriguing that a CBI enquiry against the same firm in connection with another contract for supply of the screw couplings was then in progress and yet the Director of Inspection was not sufficiently vigilant in dealing with this firm. Prima facie the inspection appears to have been very lax and perfunctory, which needs to be carefully investigated for fixing responsibility. The Department of Supply have informed that the whole matter was being examined from vigilance angle. The Committee would like these proceedings to be processed urgently and the action taken in pursuance thereof intimated to them.

1.217. The Committee are distressed to note that the first supply of screw couplings was received in July, 1973 but the representative samples for test were drawn in January, 1974. The Committee are not convinced

by the explanation that since there was a CBI enquiry going on against the firm for supplies against some other contract, the samples could not be tested till the final clearance was received in December, 1973. The Committee consider that the reason for delay in drawing of samples for test are specious. The Committee feel that if the samples from the first lot of supply had been tested in the workshops, the defects would have come to light earlier and further supplies suspended. The Committee desire that this aspect of the case may also be gone into in depth to identify the reasons for this lapse.

1.218. The Committee are also perturbed at the heavy expenditure which the Railways had to incur by direct purchase of the couplings in order to meet their pressing requirements. It is seen that against Rs. 170/- payable per screw coupling under the running contract of DGS&D, the Railways procured the screw couplings at the rate of Rs. 450/- each, which entailed extra expenditure of Rs. 9.24 lakhs. The Committee find that while ordering fresh purchases the Railway Administration failed to observe the routine formalities which consisted of formal rejection of the stores and intimation of such rejection to the supplier within 45 days of the delivery of the stores as also notification of its intention to make purchases at the risk, and cost of the firm. The Ministry of Railways' plea that the details of rejections could not be conveyed to the supplier within the time limit of 45 days because of the delay in finalising the test reports is not at all convincing. There can be no justification whatsoever for overlooking the legal formalities in a contract which are required to be observed for safeguarding the financial interest of the Railways. The Committee desire that the matter may be thoroughly investigated with a view to fixing responsibility.

1.219. The explanation given by the Ministry of Railways for the Railway Administration's failure to notify its intention to make purchases of the material at the risk and cost of the firm is equally unconvincing. It is seen that the proposal for procurement of 3 months' requirement of screw couplings through special limited tender was initiated in May, 1974 and General Manager's sanction was obtained in June, 1974. At this stage the DGS&D contract had not been extended upto 31 July, 1975. It was only in January, 1975 that DGS&D extended the delivery date. Therefore, the argument that DGS&D cancelled the contract in May, 1975 only and Railways could not wait upto this period does not seem to be tenable. While resorting to direct purchases the Ministry of Railways should have ensured that all the legal formalities were completed so that their financial interests did not suffer. In such matters the Ministry of Railways cannot leave the observance of legal formalities to the DGS&D without complying with the duties cast on them in terms of the contract. The omission needs to be looked into with a view to fixing responsibility.

1.220. The Committee would like to know how the DGS&D suo moto extended the delivery date without ascertaining whether the stores were still required against the contract. The Committee would also like to know whether DGS&D had, before extending the delivery date in January 1975, taken necessary precautions in consultation with the Railways to ensure that such extension did not in any way jeopardise the legal remedy of the consignee to resort to risk purchase at the cost of the defaulting firm. It appears that by resorting to direct purchases within the currency of the DGS&D's contract with the firm, which was cancelled only on 28 May, 1975, the Railways have forfeited their right to recover the extra cost on these purchases. The only remedy now open to them is to claim general damages, for which DGS&D is stated to have initiated action. The Committee would like to be informed of the outcome of these proceedings.

1.121. In view of the lack of functional co-ordination between the Railways and the DGS&D, as has been revealed in this case, the Committee desire that this case may be reviewed by a Joint Committee of Railways and Department of Supply to lay down appropriate procedures for obviating the recurrence of lapses noticed in the present case. The Committee would like to be informed of the action taken in this behalf.

### **Western Railway-Procurement of wire-mild steel**

#### *Audit Paragraph*

1.222. In July 1973, the Railway Administration placed an order on a firm for supply of 18 tonnes of wire, mild steel, annealed for general engineering purposes 1.25 mm (18 SWG) diameter to specification No. IS 280(soft). According to the stipulated conditions, the payment to the firm was to be made after inspection and acceptance of the material by the District Controller of Stores, Mahalaxmi. The firm supplied 18.46 tonnes of wire mild steel, between 27th July and 12th September 1973. These were accepted by the District Controller of Stores, Mahalaxmi, after test and inspection and sent to the Assistant Store Keeper, Kota, in two lots in August and November, 1973. A sum of Rs. 42,352 was also paid to the firm towards the cost of the material.

1.223. The Assistant Engineer (Construction), Kota, reported in September/October 1973 that the materials received by the Assistant Store Keeper, were in five sizes (varying from 1 to 26 SWGs) and were old

stock, badly rusted and rotten. As a result of joint inspection conducted in January 1974 by a team of three technical officers, these were found unacceptable and returned to the Stores Depot, Mahalaxmi, on 20th February 1974. The District Controller of Stores rejected the material in April 1974; but the firm expressed its inability to accept the rejection on the grounds that the material were inspected by the Technical Inspector and also tested by the Assistant Chemist and Metallurgist before these were accepted by the District Controller of Stores. Thereupon, the Chief Engineer (Survey and Construction) agreed (in August 1974) to make use of wires of 17, 18 and 19 SWGs. Consequently, the rejection memo was cancelled in September 1974.

1.224. When the Survey and Construction Organisation found these wires to be badly corroded and rusty it did not accept them. Ultimately, the Controller of Stores, Churchgate, in February 1975, ordered a final inspection of the wires by the Deputy Chief Engineer (Survey and Construction), Kota and the Deputy Controller of Stores, Mahalaxmi. They observed (April 1975) that the materials, as inspected, did not conform to the specifications and were rusty and brittle. They recommended the rejection of the entire lot as not suitable for use either as binding wire or for general use. The supply was accordingly rejected in October 1975.

1.225. In the meantime, Rs. 21,992.90 were recovered by the Administration from the pending bills of the firm and in addition, its other dues of Rs. 8089.80 were withheld. The firm protested against the deduction *inter alia* stating in July, 1974 that the materials returned to Stores Depot Mahalaxmi, by the consignee were not the same as were supplied by it. The firm again wrote to the Railway Administration in March, 1975, that, if payments were not made it would be obliged to charge interest at the rate of 18 per cent per month.

1.226. The Railway Administration stated (January 1976) that, it proposed to hold an enquiry (i) to investigate how the materials already inspected were later found to be sub-standard at the consignees' end; (ii) to ascertain the extent to which the materials are now unserviceable; (iii) to fix responsibility for failures, if any; and (iv) to go into the technical and legal aspects.

[Paragraph 20 of the Report of the C&A.G. of India for the year 1974-75, Union Government (Railways)].

1.227. The procedure laid down under IS 280 of 1972 states that for a supply of 300 coils or above ten samples should be selected and a maximum of two samples out of those permitted if they are defective. In view of this, the Committee desired to know whether the District Controller of

Stores, Mahalakshmi, had drawn out the requisite number of samples of the material supplied between July and September 1973 and carried out the prescribed tests. The Ministry of Railways in a note have stated :

“Twenty samples, more than the requisite number, were drawn from the lots of 295 bundles received on 27-7-73 and 31-7-73 by the Technical Inspector working under the District Controller of Stores, Mahalakshmi. Material was found acceptable for the size and quality. One sample was sent for testing by Assistant Chemist and Metallurgist. The Assistant Chemist and Metallurgist, Parel, tested the material for size, tensile strength and the wrapping test and considered the same as satisfactory.

As regards the lots received in September 1973, there is no record as to the number of samples drawn for inspection. The Stores Inspector found the diameter of the wire to be varying between 1.25 to 1.30 mm and after conducting the wrapping test, recommended the material for acceptance, being as per order.”.

1.228. The Committee enquired whether the Assistant Chemist and Metallurgist carried out the Chemical test as required *vide* para 5.1 of IS280. The Ministry of Railways have replied :

“As the material is used as binding wire for tying reinforcement and since there was no safety aspect involved, the chemical test for impurities, viz., sulphur and phosphorus was not important and was not carried out since the wrapping test was satisfactory.”.

1.229. According to Audit Paragraph the sizes of wire supplied varied from 16 to 26 SWGs. The Committee enquired as to how such large variations in gauges were overlooked by the Inspecting Officers. The Ministry of Railways have explained the position as follows :—

“the material on receipt at Mahalakshmi was inspected by a check of samples. This being satisfactory, the supply was accepted. The records of initial inspection do not show differences in gauges from 16 to 26 SWG.

As per joint inspection at Kota held in January 1974, the bulk of the consignment was in gauges from 17 to 19 SWG (within +1 SWG of the ordered size) and only 2.348 tonnes was outside that range i.e. upto 26 SWG. The initial check having been based on the sample inspection, the variation of certain bundles upto 26 SWG might not have come to notice.”.

1.230. The Ministry of Railways have further informed that the joint inspection was not done according to the specifications.



1.231. The Audit points out that the Assistant Engineer (Construction), Kota reported in September/October 1973 that the materials received by the Assistant Storekeeper were old stock, badly rusted and rotten. When asked as to how such material was accepted, the Ministry of Railways have stated as under :—

“It is presumed that wordings “old stock badly rusted and rotten” refer to the report from the Assistant Engineer (Construction), Kota, dated 3-10-73, which pertains to the first consignment of 195 bundles despatched during August 1973. It is observed from the records that while the Assistant Store-keeper, Kota mentioned that some of the bundles are rusty and rotten, the Assistant Engineer (Construction), Kota, mentions that the entire supply has been old stock badly rusted and rotten. During the joint inspection in January, 1974, covering the consignments despatched in August 1973 and November, 1973, the material was said to be in badly rusty and corroded condition. As explained earlier the material was initially accepted on the basis of a sample check”.

1.232. The Ministry of Railways have further stated that an Enquiry Committee appointed by them has been asked to examine *inter alia* :—

- “(i) To investigate into how the material which were duly inspected at Mahalaxmi Depot were subsequently found to be sub-standard at the consignee’s end.
- (ii) To examine the possibilities of mix-up and other related issues.”.

1.233. Pointing out that the material supplied between July 1973 and September 1973 were finally rejected in October 1975 i.e. 2 years later, the Committee desired to know as to why it took so long to finalise the matter. The Ministry of Railways have explained as under :—

“The material was supplied at Mahalakshmi in July and September 1973 and accepted in August and September 1973. The material was despatched to Kota in two batches on 28-8-73 and 6-11-1973. After the first report was received from the consignee, joint inspection was held at Kota on 5-1-74 and 6-1-74. The Technical Inspector who attended the joint inspection, gave further qualifying remarks on 7-1-74 to his District Controller of Stores, with copy to the Assistant Engineer, Kota, which implied that the wire presented before the joint inspection may

not be the same as was inspected by him. As this suggested possibility of mix-up, the matter was examined in consultation with the indenter if supplies with marginal variation could be accepted. As this was not acceptable to the indenter as per his reply of February 1974, the material was rejected in full in April 1974 even though accepted earlier.

As this rejection was not acceptable to the supplier, the matter was examined further. An Administrative Officer of the Stores Branch examined the material at Mahalakshmi in August 1974 and found that it was not initially possible to inspect each and every bundle and suggested that the nearest sizes 17 & 19 gauges could be used along with 18 gauge wire. As this suggestion was accepted by the Chief Engineer, the rejection made earlier for the total supply was reviewed and rejection memo was issued only for a quantity of 2.348 tonnes in September 1974. As the Indenting Officer also stated in April 1974 that the material was no longer required by him, the utilisation of the part quantity was referred to the Engineering Department along with the question of acceptance of debit in January 1975. The consuming department regretted their inability to accept the material and debit as the material was badly corroded and rusted. It was, therefore, decided to have the material examined jointly at Administrative Officers' level by Deputy Controller of Stores, Mahalaxmi and Deputy Chief Engineer, Kota. The inspection report, received in April, 1975, indicated that the material had deteriorated and could not be used. In view of this it was decided to reject the entire consignment on 3-10-75. In this connection it is also pointed out that material was subject to further deterioration after receipt in 1973 as a result of very heavy floods in July 1974 due to unprecedented deluge on account of heavy monsoon. The entire area where the material were submerged in water, which got mixed up with corrosive materials like caustic soda etc. lying in the Stores Depot. Considering the various aspects which had to be examined at each stage and the problems involved in settling the dispute arising out of initial acceptance and subsequent rejection it will be seen that the time involved was not unduly long."

1.234. According to Audit Paragraph the materials were accepted in July and September 1973 and rejected in April, 1974; but the rejection was withdrawn in September, 1974. The Committee desired to know as to how the results of inspection could undergo such radical change from time to

time and material rejected was subsequently found acceptable. In reply the Ministry of Railways have stated that the material supplied in July 1973 was accepted in August/September 1973 based on the inspection at Mahalaxmi by Technical Inspector and the result of Assistant Chemist and Metallurgist, Parel in respect of one sample. The rejection in April, 1974 was the result of the joint inspection at Kota held in January 1974. The developments leading to acceptance of part quantity in September, 1974 have already been explained above.

1.235. It appears that Railway Administration had ordered an enquiry into the matter in January, 1976 obviously after receipt of the audit paragraph. The Committee enquired as to why the Railway Administration did not institute an enquiry earlier on its own. In reply, the Ministry of Railways have stated that "there was a chronological sequence of events on this case as explained earlier. Further to the inspection by an Administrative Officer in August, 1974, as early as in February 1975 a joint inspection had been ordered at the level of two Administrative Officers. The entire supply was rejected on 3-10-1975. The firm's protest to this was received on 18th October, 1975 followed by legal notice on 1-12-75. All this had to be examined in consultation with the Law Officer. Thus the enquiry could be ordered only after this stage as has been done."

1.236. The Committee asked whether the Enquiry Committee have finalised its Report and if so desired to know its findings :

"The Enquiry Committee have submitted their report and the same is under examination. Its findings together with administration's views will be forwarded shortly."

1.237. The Committee have been given to understand that the firm had served a legal notice on the Railways. Asked about it, the Ministry of Railways have stated :

"It is true that the firm served a legal notice on the Railway under Section 80 on 1-12-1975. The case was referred to Law Officer after receipt of the legal notice and the Law Officer of this Railway held that the action taken by the Railway Administration in rejecting the material was legally in order.

No reply was given to the legal notice and it is understood from the Law Officer that a reply to the legal notice under Section 80 is not mandatory. Although the notice period has expired, the firm have not taken any further action so far."

**1.238. The Committee note that the Ministry of Railways placed an order for the purchase of 18 tonnes of wire mild steel (18 SWGs) in July**

1973 with a private firm of Bombay. The firm supplied 18.46 tonnes of wire mild steel between 27 July and 12 September, 1973 valued at Rs. 42,352. The District Controller of Stores, Mahalaxmi accepted the stores after test and inspection and sent the same to the Assistant Store-Keeper, Kota. A Joint inspection held by a team of Technical Officers revealed that the materials were old, rusted and rotten. The stores were refused to accept the material bank. Ultimately, after further inspection refused to accept the material back. Ultimately, after further inspection the supply was rejected in October 1975. As the Railway Administration recovered Rs. 21,992.90 from the firm from its pending bills and also with held other dues of Rs. 8,089.80, the firm has taken the case to a court of Law. The facts disclosed go to show that the stores were not properly inspected and tested before acceptance. Some of the glaring lapses on the part of the inspecting authorities are mentioned below.

1.239. The Committee find that twenty samples were drawn from the lots of 296 bundles of wires received during July, 1973 by the District Controller of Stores, Mahalaxmi, but only one sample out of them was sent to Assistant Chemist and Metallurgist, Parel for testing the material for size, tensile strength and the wrapping test. It is not clear how the material was found acceptable for size and quality by the technical inspection when the materials supplied were in five sizes varying from 16 to 26 SWGs against the order for 1.25 mm. dia 18 SWG and the specification prescribed a tolerance limit of + 0.04 mm. only. Even according to Railway's own admission based on the utility of the material 2.348 tones were outside the acceptable range, that is, 13.44 per cent. The Committee cannot but conclude that the initial inspection was lax and perfunctory.

1.240. The Committee regret that no record has been maintained of the samples drawn for inspection from the lots received in September, 1973. The Committee take a serious view of this lapse and would like the Ministry of Railways to investigate the matter thoroughly for fixing responsibility.

1.241. The Committee regret that the Chemical test of the material as required vide para 5.1 of IS-280 was not carried out. The Ministry of Railways have advanced the argument that as the material was used for binding wire and for tying reinforcement, the chemical test for impurities viz. sulphur and phosphorus was not important. The Committee are surprised that an essential condition of chemical test was waived. That this waiver was unjustified is proved by further development viz. that the material had to be rejected being 'old stock' badly rusted and rotten'. Had the material been chemically tested in larger measure at the initial stage, impurities of sulphur and phosphorus would have been noticed and suitable action taken before acceptance of the material.

**1.242. The Committee note that an Enquiry Committee has been constituted to investigate the matter fully. The Committee would like to know the findings of the Enquiry Committee and the action taken in pursuance thereof.**

**North Eastern Railway—Non-utilisation of an air-conditioned tourist car**

1.243. In September 1959, the North Eastern Railway Administration sent a proposal to the Railway Board for provision of an air-conditioned tourist car (metre gauge) anticipating demand from the following categories of Railway users :—

- (a) Buddhist pilgrims from abroad as well as from different parts of the country for journeys to a number of places of Buddhist interest on the North Eastern Railway ;
- (b) V.I.Ps., and mountaineering expeditions travelling to and from Nepal ;
- (c) Upper class passengers for journeys to various hill stations ; and
- (d) Upper class businessmen, tourists, and high officials in private and public sectors growing up in North Bihar.

1.244. The proposal was not supported by a financial appraisal showing anticipated revenue from the car *vis-a-vis* recurring expenditure on it. The approval of the Railway Board to the manufacture of an air-conditioned tourist car (metre gauge) was conveyed in December 1963. The lay out and drawing of the car was finalised by the Railway Board in March 1965 and detailed estimate for Rs. 2.54 lakhs was sanctioned by it in November 1967. However, the manufacture of the car was started in July 1966 itself and was expected to be completed by the end of 1967. It was completed and turned out of the workshop in March 1970.

1.245. After trials conducted in August, 1970, the car was made over to the Chief Train Examiner, Gorakhpur, in October 1970 for traffic use ; but the car was returned to the workshop and was not put to any service till May 1973, when the Electrical department conducted a trial. The Chief Electrical Engineer, after personal inspection of the car, pointed out certain deficiencies and shortcomings to the Chief Mechanical Engineer for necessary rectification. In January 1974, the car was declared fit for use subject to the conditions that

- (i) it should invariably be booked with mail or express trains ; in very special cases, where it is to be booked by other trains, Electrical department must be consulted first ;

- (ii) it should generally be booked/worked for important junction stations where battery charging/train lighting facilities exist ; and
- (iii) sufficient notice in advance as regards its movements should be given to the electrical supervisors and officers concerned at originating, enroute and destination stations.

1.246. The car was finally turned out on 16th February 1974. The expenditure booked up to August 1975 was Rs. 2.25 lakhs. The completion report is still (December 1975) to be prepared.

1.247. The car was based at Lucknow Junction station and was used only on 11 occasions during the period 5th March 1974 to 18th April 1975, out of which 4 were empty runs, 5 runs were for senior Railway officials and two runs for a foreign dignitary.

1.248. Thus, the use was not really by the category of passengers for whom it was originally intended. Further, no requisition was found on record from any party for such a car from 1960 to February 1974. Although the detailed estimate of the car was approved by the Board 8 years after the proposal was initially made to it by the Railway Administration, the need for the car did not appear to have been reviewed in the light of :

- (a) the developments in road transport, air travel and rail services providing air-conditioned coaches ; and
- (b) the requisitions for such a facility from tourists especially keeping in view that the Buddhist pilgrim centres mentioned in the proposal were not located near metre gauge rail heads and in some cases were not served by mail/express trains.

1.249. The Railway Administration stated (September 1975) that there had been no demand for the use of tourist car but this had to be judged in the context that there had been 300 to 500 per cent rise in air-conditioned class fares since 1960 and this had perhaps been a deterrent to the use of the air-conditioned accommodation by Indian tourists and pilgrims. It further stated that due to various measures taken by the Government of India for promoting international tourism, a demand might be generated in future years for the use of the air-conditioned tourist car and that it would not contribute to the prestige of the country or the Indian Railways if foreign tourists were advised on demand that no air-conditioned tourist car was available.

[Paragraph 42 of the Report of the Comptroller and Auditor General of India for the year 1974-75 Union Government (Railways)].

1.250. It is seen that the North Eastern Railway Administration sent the proposal for the provision of an air-conditioned tourist car (Metre Gauge) to the Ministry of Railways in September, 1959 and the Ministry of Railways conveyed their approval to the manufacture of the tourist car in December 1963. When asked why it took the Ministry of Railways four years in conveying their approval, the Ministry have replied :

“The North Eastern Railways proposal for provision of an air-conditioned tourist car on additional account (Metre Gauge) which was sent to Railway Board in September, 1959 was included in the Rolling Stock Programme for 1962-63. The Board's file dealing with the formulation of 1962-63 Rolling Stock Programme has since been destroyed in May, 1972, as it was already more than 10 years old.

However, on the basis of available information it appears that when the proposal of North Eastern Railway was received in 1959, the Rolling Stock Programme for 1960-61 had been already finalised. During 1960 when the Rolling Stock Programme for 1961-62 was under finalisation, it was being examined as to whether a tourist coach already available on the Eastern Railway could serve the tourists over the North Eastern Railway also. After examination it was felt that there was need for provision of an additional tourist coach for the Metre Gauge section served by North Eastern and North-East Frontier Railways, and accordingly, provision was made in the Rolling Stock Programme for 1962-63 which was finalised by the Railway Board in June, 1961. It would, therefore, be seen that between the receipt of the proposal from the North Eastern Railway and its approval by the Railway Board the gap was less than two years and cannot be considered unduly long, particularly as the proposal was already late for 1960-61 Rolling Stock Programme.

Further action to authorise the North Eastern Railway for construction etc. could be taken only after the approval of the Railway Budget for 1962-63 by the Parliament.

It may, however, be further stated that in May, 1962 a review was initiated to ascertain whether some existing Partial A.C. coaches could be converted into A.C. Tourist cars. This review indicated that there was a total demand of five A.C. Tourist Cars *viz.*, 3 for N.E. Railway, one each for Southern and Central Railways. As against this, only two A.C. Partial coaches were available. These were adjusted against the demand of Southern

and Central Railways. However, as a result of the review conducted and on further consideration, N.E. Railway was finally advised in December, 1963 to construct only one against the demand of 3 A.C. tourist cars. This construction was to be made against the 1962-63 Rolling Stock Programme."

1.251. The Audit Paragraph points out that the North Eastern Railway's proposal for an air-conditioned tourist car was not supported by a financial appraisal showing anticipated revenue from the car *vis-a-vis* recurring expenditure on it. On being asked whether it was not necessary to draw up a financial appraisal of the proposal before sanctioning it, the Ministry of Railways have merely stated :—

"The justification for additional coaching stock is required to be considered in terms of paras 1517 and 1518 of the Indian Railway Code for the Mechanical Department."

1.252. It is seen that the North Eastern Railway Administration had made out a case for the provision of the air-conditioned tourist car mainly on the anticipated demand for the car from tourists. However, the Audit para points out that no requisition was found on record from any party for such a car from 1960 to February 1974. The Committee asked whether the Ministry of Railways considered it necessary or desirable to consult the Tourism Department of the Government of India or State Governments to make a realistic assessment of the tourist potential especially when there was no requisition for such a facility from the tourists before conveying its approval to the manufacture of the tourist car. The Ministry of Railways have, in a note, stated :

"In view of the fact that the concerned Railway Board's file has been already destroyed in 1972, it is not possible to indicate whether in this particular case consultations, if any, were done at the Railway Board level with the Tourism Department of the Government of India or State Government.

It is, however, not a general practice at the Railway Board level to consult the Tourism Department of Government of India or the State Governments before approving the provision of individual tourist coaches. The traffic justification for a special coach like a tourist car is prepared by the concerned Railway Administration on the basis of past and anticipated demands taking into account relevant sources of information. A decision to include the coach in the Rolling Stock Programme is taken by the Railway Board after examining the justification furnished by the Railway and after considering the possibility of meeting traffic by the Railway Board after examining the justification furnished



by the Railway and after considering the possibility of meeting traffic requirements by deploying the stock from available sources.

In this case the North-Eastern Railway had taken into consideration the likely demands from various sources *e.g.*, Buddhist pilgrims, upper class tourists to hill stations, VIPs, and mountaineering expeditions travelling from Nepal etc.”

1.253. The tourist car which was turned out of the workshop in March, 1970 was delivered in October, 1970 for traffic use. The car was returned to the workshop and was not put to any service till May, 1973. It was only in January, 1974 that the car was declared fit for use by the Chief Electrical Engineer. The Committee asked whether the car was properly manufactured according to the specifications and if so, why it took about four years for the Railways for conducting further trials and commissioning the tourist car after it was delivered by the workshop in 1970. Clarifying the position, the Ministry of Railways have stated :

“Before the car could be put in commercial service, it was considered necessary to carry out service trials to ascertain the performance of air-conditioning equipment. These service trials were carried out in October, 1970 but were not considered complete because the ambient temperatures during this period are considerably lower than those experienced during the summer months. It was therefore decided to carry out further service trials in summer. The car was manufactured according to specifications.

In the meantime 540 AH batteries installed on this tourist car had to be removed in December, 1970 for use on partial A.C. coaches undergoing POH. This became necessary because of acute shortage of 540 AH cells. As against the annual requirement of 144 Nos. of 540 A.H. cells for maintenance and overhaul of A.C. coaches on the N.E. Railway, the supply of cells was as follows :

October, 1970 to March, 1971 . . . . .	Nil
April, 1971 to July, 1971 . . . . .	90
August, 1971 to November, 1971 . . . . .	Nil
December, 1971 to April, 1972 . . . . .	66
May, 1972 . . . . .	Nil
June, 1972 . . . . .	54
July, 1972 to November, 1972 . . . . .	Nil
December, 1972 . . . . .	29
January, 1973 . . . . .	63
February, 1973 . . . . .	8

There was a general shortage of heavy duty battery cells for rolling stock application during this period and priority was given to maintain in service passenger carrying coaches. The cells were fitted on this tourist car in February, 1973 and the service trials were conducted in May, 1973. These trials were satisfactory as far as air-conditioning was concerned. However, certain other minor deficiencies and shortcomings were noticed and these were rectified in Shops by November, 1973. The car was finally turned out in February, 1974."

1.254. According to Audit Paragraph the need for the car was not reviewed in the light of subsequent developments in road transport, air travel and rail services providing air-conditioned coaches and absence of requisitions from the category of passengers for whom the car was being manufactured, although the detailed estimates were sanctioned eight years after the proposal was originally made in September, 1959. On being asked why this review was not done, the Ministry of Railways have replied :

"The provision for the Metre Gauge air-conditioned tourist car under reference was made in the 1962-63 Rolling Stock Programme. The manufacture was taken up in July 1966. There was thus a period of about 4 years during which the need for the construction of the tourist car could have been reviewed.

In May, 1962 a review was initiated on an all railway basis to ascertain whether some partial A.C. coaches could be found for conversion into A.C. tourist cars. This review indicated that after meeting the existing demands for the A.C. coaches on the metre gauge, only two partial A.C. coaches could be spared for conversion into air-conditioned tourist cars. As a result of this review, the conversion of two MG, partial AC coaches into MG. AC tourist cars was set off against the construction of two new MG, AC tourist cars, programmes on the North Eastern Railway against 1963-64 Rolling Stock Programme on additional account for Central and Southern Railway. The construction of one AC, MG car against 1962-63 programme was, however, retained.

It would be seen from the above that the Railways did carry out a review with a view to make the best possible use of the available coaching stock and reduce the overall requirements of AC tourist cars on additional account.

It may be further stated that the development of road transport, air travel etc., to which the Committee have referred, would not account for inadequate demand for air-conditioned travel on

the Railways. In the opinion of the Railway, the demand did not materialise mainly on account of the steep rise in the air-conditioned fares after 1967-68. The increase in the air-conditioned fares between 1960-61 to 1967-68 was only 27.5 per cent but the increase between 1967-68 and 1974 September was as much as 306 per cent (over 1967-68). The Railways have since decided to reduce air-conditioned fares by about 25 per cent from May 1976 and it is hoped that this will stimulate the demand for air-conditioned travel.

It has to be kept in view that NE Railway serves as the rail head for a large number of tourist stations as also other places of tourist interest. The provision of an air-conditioned tourist car on the Railways has, therefore, to be considered in the long term perspective and as a part of the infrastructure necessary for promoting tourism."

1.255. The Committee have been informed that the total cost of the tourist car is Rs. 2.25 lakhs. As to the annual cost of maintenance of the tourist car, the Ministry of Railways have stated :

"No expenditure has been incurred on the maintenance of this car prior to February, 1974 as the car was made available for use in February, 1974. No separate attendant or other maintenance staff has so far been provided for this car. Requirement of running maintenance and attendant is met from the staff already available on the divisions for other air-conditioned coaches.

As regards the annual cost of maintenance of the tourist car, it is not possible to indicate the figure since expenditure on maintenance of coaches is not maintained individual coachwise. However, the average cost of repairs per passenger coach of this type which is given a Periodical Overhaul every two years is about Rs. 6,000 per year."

1.256. The Committee desired to know whether the car was being utilised and if so, how. In a note, the Ministry of Railways have stated :

"The coach was utilised on 11 days for V.I.P. moves during the period 5-3-1974 to 18-4-1975. After that it has not been used for the public. However, efforts are being made to popularise this coach and with the reduction in A.C. fares from 1-5-1976, it is expected that the utilisation will improve."

1.257. The Committee enquired about the total fleet of first tourist cars and air-conditioned tourist cars (Metre Gauge) available with the

Railways and called for details of trips performed by these cars (i) for tourists, (ii) for officials and (iii) for V.I.Ps. during the years 1965-66, 1972-73, 1973-74 and 1974-75. The Ministry of Railways have intimated :

“There are four metre gauge air-conditioned tourist cars and thirty seven first class metre gauge tourist cars with the Indian Railways. These include 14 per cent allowance required for periodical overhauling and maintenance repairs. Of these, one air-conditioned Tourist Car and 24 First Class Tourist Cars were constructed before 1930-31.

The particulars of utilisation of these cars during the year 1965-66 are not available at this stage. The average number of days these cars were utilised during 1972-73, 1973-74 and 1974-75 are indicated below :—

	1972-73			1973-74			1974-75		
	Tour-ists	Offi-cials	VIPs	Tour-ists	Offi-cials	VIPs	Tour-ists	Offi-cials	VIPs
Air-conditioned	..	31	4	1	23	5	1	15	4
First Class Tourist Cars	1	124	1	1	131	1	1	129	1

1.258. The Committee are perturbed to find that the proposal of the North Eastern Railway sent in September, 1959 for the provision of an air-conditioned tourist car for catering to the likely demand from tourists of different categories fructified after elapse of more than thirteen years. On the proposal submitted by the Railway Administration in September, 1959, the Ministry of Railways took more than four years in conveying their acceptance of the proposal. Thereafter, more than six years were taken in finalising the lay-out and drawings of the car and completing its manufacture. Further after the tourist car was turned out of the workshop in March, 1970, the Railway Administration took almost four years in conducting further trials and ultimately commissioning the car in February, 1974. The abnormally long time taken in processing the proposal for acquisition of tourist car and the poor utilisation of the tourist car after commissioning only lead the Committee to conclude ab initio there was no valid justification for the provision of a tourist car.

1.259. The Committee are further surprised to learn that from 1960 to February, 1974 no requisition from any party for the use of the car had been received even though the North Eastern Railway Administration had made out a case for the provision of the air-conditioned tourist car mainly on the basis of its anticipated demand from tourists. The meagre utilisation of the car during the period 5 March, 1974 to 18 April, 1975 also reinforces

the Committee's view that the justification of a tourist car by the North Eastern Railway for the use of tourists could not be substantiated. It is disconcerting that in the period of about 13 months the car was utilised only on 11 occasions out of which 4 were empty runs, 5 runs were for senior Railway officials and 2 runs for a foreign dignitary. The Committee would recommend that the Ministry of Railways should urgently review the utilisation of this tourist car which has been built up at a cost of more than Rs. 2 lakhs and which involves Rs. 6,000 per annum by way of maintenance charges.

1.260. The Committee have been informed that there are four metre gauge air-conditioned tourists cars and thirty-seven first class metre gauge tourists cars with the Indian Railways. The particulars of utilisation of these cars during 1972-73, 1973-74 and 1974-75 as furnished by the Ministry of Railways are revealing. In each of the three years these air-conditioned tourist cars and first class tourist cars were used by tourists only for one day. For five or six days they were used for carriage of V.I.Ps. Strangely enough, these were used by officials for 155 days in 1972-73, for 154 days in 1973-74 and for 144 days in 1974-75. This clearly demonstrates that these tourists cars are being put to purposes other than those for which they were intended, viz. carriage of tourists. The Committee deplore the improper utilisation of such costly national assets. They need hardly emphasise that the Ministry of Railways should immediately make an overall review of the need for maintaining the fleet of these tourist cars (of all gauges) more particularly in the context of their poor utilisation for the purpose for which they were originally intended. In case these cars cannot be economically used for tourist traffic, the Ministry may consider the feasibility of putting them to alternative uses by making suitable modifications. The Committee would like the Ministry to complete this review urgently.

---

C. M. STEPHEN,

*Chairman.*

*Public Accounts Committee*

NEW DELHI;

December 20 1977/Agrahayana 29 1899(s)

## APPENDIX I

(See paragraph 1.43)

*Note on the efforts made by the Ministry of Railways and ISM to persuade the supplier firm to agree to the replacement of defective cylinder heads.*

Note on abbreviations used.

DLW	. Diesel Locomotive Works.
MGS	. Mughalsarai
Sr.DME/DSL	. Senior Divisional Mechanical Engineer, Diesel
DG/ISM	. Director General, India Supply Mission.
COS	. Controller of Stores.

Against DLW's indent for WDM4 locomotives spares, ISM Washington placed a contract No. C-5789/72/IDA/1312 dated 16-11-73 on M/s. Hunt Spiller Manufacturing for supply of 96 cylinder heads. The firm despatched by Air 48 nos. on 29-12-73 and the balance 48 nos. on 6-2-74 from Frankfurt, West Germany. These were received at MGS on 5-1-74 and 24-2-74 respectively and were fitted on various locomotives as and when required.

2. On 26-9-74, Sr. DM(Dsl)/MGS lodged a claim with the suppliers for 17 nos. cylinder heads which had cracked within the warranty period of one year. His letter No. DSL/MGS/Mech/15 dated 26-9-74 refers. DG/ISM Washington were also advised on 6-11-74 by Controller of Stores, Northern Railway for arranging replacement of these 17 cylinder heads. ISM Washington vide their letter No. C-5789/72/IDA/1312 dated 19-11-74, informed M/s. Hunt Spiller Manufacturing of the failure of 17 cylinders heads failed earlier than their usual life and asked the firm to depute their service Engineer to look into the matter.

3. M/s. Hunt Spiller Manufacturing advised Sr. DME/MGS vide their letter No. HS/1442 dated 13-11-74 of the warranty applicable to the contract and requested him to return the damaged cylinder heads, freight prepaid to their address at San Francisco, U.S.A. to enable them to process the claim for replacement of cylinder heads.

4. The firm was advised vide General Manager (Mech) Northern Railways letter dated 28-11-74 that in view of the failure of the cylinder heads within a very short duration, it was not considered desirable to despatch the cracked cylinder heads to USA for inspection and test when the facilities for the same were available in India. It was also pointed out that in the case of cylinder heads supplied by M/s. General Motors, the cracked

cylinder heads were always inspected by a representative of the firm at the Diesel Shed itself. M/s. Hunt Spiller were, therefore, requested to depute their representative to visit the diesel shed for inspection of the defective cylinder heads.

5. The firm, *vide* their letter No. HS 1510 dated 13-12-74, stated that the ratio of the claim to the total number of cylinder heads supplied made it mandatory that these heads are inspected in their own premises and as such they reiterated that the defective heads be sent to U.S.A. They also stated that these heads were being used throughout the world and the Northern Railway's claim was the only failure reported and as such they must use every means at their disposal to determine the cause.

6. In the meantime same more cylinder heads supplied by this firm. failed pre-maturely and ISM Washington were advised *vide* letter dated 13-3-75.

7. Efforts were continued to have the representatives of the firm to visit MGS shed and inspect the cylinder heads but without avail. Letters written to the firm's local representatives on 10-7-75 and 10-10-75 may be referred to. It was only in October 1975, when the local representative of M/s. Hunt Spiller, namely, M/s. Remteck (India) advised *vide* their letter No. HS/45/75 of 15-10-75 that Mr. Subramanian, Chief Engineer of M/s. Hunt Spiller had visited MGS. The local representatives requested for a meeting with Northern Railway Authorities. During discussions with them on 16-11-75. M/s. Remteck advised that representative of M/s. Hunt Spiller would come sometime in January 1976 when the cylinder heads would be inspected by him at MGS. The firm's representatives were reminded on 27-1-1976.

8. Sr. DME/DSL/MGS lodged another claim for 50 heads with M/s. Hunt Spiller *vide* his letter No. DSL/MGS/MECH/15 dated 7-11-75 giving details of the dates fitted, dates cracked etc. ISM Washington were informed by the Controller of Stores N. Rly. *vide* his letter dated 23-12-75 that a further lot of cylinder heads as given under DME/MGS' letter dated 7-11-75 referred to above had cracked within the warranty period and requested I.S.M. to arrange for their replacement.

9. M/s. Remteck, *vide* their letter No. HS/45/76 dated 31-1-76 confirmed the discussion on 16-11-75 referred to above, and stated that the President M/s. Hunt Spiller was planning a trip to India in January but had been delayed and he would be writing separately. The firm wanted details of loco numbers, cylinder heads etc. which had failed. A complete list of 96 cylinder heads which had failed were supplied to M/s. Remteck on 7-4-76. The local representatives were reminded on 14-5-76. They advised on 18-5-1976 *vide* letter No. HS/45/76 that details of cylinder

heads cracked had already been sent to their Principals in U.S.A. who were scrutinising the same. Due to one reason or the other, no one from M/s. Hunt Spiller turned up despite many reference (letter dated 21-6-76, 10-7-76). The local representative advised on 24-7-76 that the firm's President was seriously ill and no decision could be taken till he got back to office.

10. ISM/Washington addressed a letter No. C-5789/72/IDA/1312 dated 13-4-76 to the firm bringing to their notice the 50 cylinder heads (referred to in COS' letter dated 23-12-75, quoted above) which had cracked much before the normal lifeloading to the conclusion that there have been basic manufacturing defects. I.S.M. requested the firm to replace these 50 cylinder heads also in terms of the warranty.

11. The details of all the 96 cylinder heads supplied by M/s. Hunt Spiller were advised to ISM on 5-6-1976. ISM were further reminded by a D.O. letter dated 30th June 1976 followed by a cable dated 13-8-76. M/s. Hunt Spiller Manufacturing were also advised *vide* letter dated 27-7-76 that all the 96 cylinder heads had failed and requested them for immediate replacement of the defective cylinder heads, a copy of this letter was endorsed to I.S.M. as well as the local representatives.

12. I.S.M. in their letter No. C-5789/73/IDA/1312 dated 28-7-76 addressed to M/s. Hunt Spiller forwarded the list of all the 96 cylinder heads to the firm and informed them that almost all the heads had cracked within the warranty period of 12 months. They were asked to arrange to give bank guarantee to ensure the successful free replacement of the defective supplies. In the copy endorsed to the Controller of Stores, the railway was asked to furnish a metallurgical report and inform whether the cracked cylinder heads could be repaired by the Northern Railway and whether the cracking was due to poor maintenance.

13. The information demanded by I.S.M. in their letter dated 5-6-76 referred to above was furnished *vide* Controller of Stores' letter dated 9-9-76. ISM were also advised *vide* letter dated 10-9-1976 that the firm had not taken any tangible action to settle the claim and arrange replacement. ISM was requested that the feasibility to take legal action against the firm be examined.

14. ISM Washington *vide* their letter C. 5789/72/IDA/1312 dated 18-10-76 addressed to the Controller of Stores stated that the firm was inclined to give a bank guarantee but have disputed that they were not responsible for all the 96 cylinder heads as per the warranty clause. However, the President stated that he was prepared to stick to 12 months warranty. ISM informed that they were pressing the firm to accept the railways claim on the basis of the services rendered.



15. I.S.M. Washington vide their letter C-5789/72/IDA/1312 dated 17-11-76 to the Controller of Stores have advised that a meeting was held on 13-10-76 with the President of M/s. Hunt Spiller and according to the decision arrived at, the firm had agreed that the warranty period could be counted from the date on which cylinder head was mounted on the engine. After persuasion the firm have agreed to accept the report given by the railways on defective supply and agreed to replace 90-cylinder heads without further inspection free of cost. For this purpose the indentory will despatch all the defective cylinder heads to M/s. Hunt Spiller Manufacturing in West Germany within 3 months after receipts by the indenter that a bank guarantee has been received from M/s. Hunt Spiller U.S.A. M/s. Hunt Spiller will furnish a bank guarantee valid for one year for the cost of 90 cylinder heads. M/s. Hunt Spiller have agreed that the cylinder heads will be shipped to India within 90 days of the receipt of defective cylinder heads in West Germany. The freight of the defective heads from India to West Germany and also that of the replacement cylinder heads from West Germany to India will be borne by M/s. Hunt Spiller.

## **APPENDIX II**

**(See Paragraph 1.50)**

***Copy of the note furnished by the Ministry of External Affairs on the coverage by ISM of the Railway's indent for cylinder heads***

Indent was placed by Diesel Locomotive Works on 28-9-1972. It was received by Supply Wing on October 17, 1972. While placing the indent the Diesel Locomotive Works did not specify any urgency for procurement of cylinder heads. The Supply Wing therefore processed the whole indent in its entirety.

Limited Tender Enquiry was issued on 25-10-1972. In the Limited Tender Enquiry floated, M/s. Hunts Spiller was not included because apparently the fact that M/s. Hunt Spiller was a supplier of cylinder heads of loco engines was not known to the Supply Wing at that time. The precise reasons for not addressing the tender enquiry to M/s. Hunt Spiller are not on record. Tender opening was scheduled for 1-12-1972 but extended to 29-12-1972, at the request of the trade as the number of items were large and firms were not able to prepare the quotation by 1st December. A part quotation including cylinder head of General Motors was received on February 1, 1973 and for the balance items quotation was received on February 23, 1973 valid upto 28-4-1976. Quotations from General Motors as well as from other firms were received till February 28, 1973.

The copy of quotation of General Motors was not forwarded to indenter immediately on receipt since the offers had to be scrutinised by the Supply Wing, to find out if any such reference was required. After completion of scrutiny, a telex reference was made on 17th April, 1973.

The total number of items indented were 554. The indent was processed in its entirety as stated earlier. Eight quotations were received from four firms. The tenders were scrutinised by the Supply Wing with a view to procure the stores without making any reference to the indenter in case of the offers were technically acceptable and valid foreign exchange was available. In case of indent under reference the same exercise was undertaken. The calculations of equitable prices for the very large number of items, comparison and ranking of the prices is time-consuming.

After working out the lowest prices, part numbers against each and every item of the lowest tenders had to be compared with the part numbers for the respective items given in the indent to ensure the procurement of the correct parts. Moreover, prices quoted had to be compared with the estimated rates indicated in the indent against each item to ensure procurement within the allocated foreign exchange. During the period this indent was under process since the date of receipt in September, 1972, approximately 116 indents were received from the various Railways and had to be processed. Approximately 112 contracts were placed during this period. Taking this total activity into account including the detailed planning in processing this indent for 554 items it took six weeks to complete the scrutiny of the offers. Moreover with regard to 35 items Diesel Locomotive Works had given incorrect part numbers and, therefore, a detailed Telex reference was made to Diesel Locomotive Works on 17th April, 1973 for confirming the part numbers as quoted by the firm and additional foreign exchange. The Diesel Locomotive Works had given the estimated cost (\$ 173 each) which was outdated *vis-a-vis* the rate prevailing at the time of indent, which was General Motors June, 1971 (63rd edition) price list. The rate quoted by General Motors on 29-1-1973 was 5 per cent above their price list of 3rd January (64th Edition). This edition was apparently with the consuming Railway since subsequently *vide* their letter dated May 19, 1973. Diesel Locomotive Works forwarded comments on the parts required on the basis of 64th edition of Price List available with the consuming Railway. Had Diesel Locomotive Works given the estimated price on the basis of General Motors latest price list and provided a cushion for general rise in price, back reference could have been avoided. Moreover India Supply Mission could not have accepted technically different stores without referring to the indenter. For 366 items for which offer of General Motors was in picture additional foreign exchange of \$ 7,966,655 was needed to cover the full quantity as required by Diesel Locomotive Works.

A telex reply was received from DLW in India Supply Mission on 30-4-1973, intimating inability to furnish reply within the period specified. On May 7, 1973, Diesel Locomotive Works was apprised of the coverage position by a letter that out of 554 items on the indent, 107 items already have been covered on 3 firms and for 36 items no offer was received and hence treated as cancelled. For 9 items Diesel Locomotive Works asked for deletion themselves. This left 402 items for coverage with General Motors. General Motors were requested to extend their offer till May 31, 1973, by Supply Wing's telex dated April 30, 1973. The firm did not agree to extension of their prices. There is no written communication from General Motors declining to extend the validity of their quotation beyond 28-4-1973. However, a note dated

April 24, 1973, is on record stating that the firm telephonically intimated their inability to extend the validity of their quotation. Indentor *vide* his letter dated May 19, 1973 received on June 5, 1973, offered part comments on the basis of General Motors' replacement parts price book 64th edition. By this time, as stated above, the firm's offer had expired.

The indentor, however, *vide* his telex dated 6-6-1973 called for a copy of the quotations of General Motors (by then expired). This was forwarded *vide* Supply Wing's letter dated June 13, 1973 even though the offer had expired. Apparently, the offer of General Motors had to be referred to Diesel Locomotive Works with the intention to give them the idea of the then current prices. *Vide* his telex dated 30-5-1973 the Indentor had asked Supply Wing, referring to his letter dated May 19, 1973, to reduce quantity proportionately for all items to keep within the foreign exchange allotted. It is submitted had such clearance been given to Supply Wing before 28-4-1973 in reply to Supply Wing's cable of 17-4-1973, procurement action could have been finalised within the validity period of General Motors quote. The Indentor could have cleared at least the item of cylinder head (which was required urgently) within the validity period of General Motors quote. It was, however, pointed out in Supply Wing's letter dated June 13, 1973 that reducing quantity proportionately must be done by Diesel Locomotive Works. This could be done only by the Indentor, as he knew his requirement for each item and could intimate the proper reduction, itemwise. Reply of Diesel Locomotive Works was received by India Supply Mission on 30-7-1973, *Vide* their letter Diesel Locomotive Works reduced the quantity of 47 items, including cylinder heads from 230 number to 200 numbers. They also deleted 32 items from the indent and commented in respect of part numbers of 21 items.

Since the previous offer of General Motors has expired, the current rate as available from the printed price list of General Motors (65th edition) was compared with the available foreign exchange. Diesel Locomotive Works was intimated *vide* telex dated August 9, 1973, that cylinder head was available on General Motors' parts price book 65th edition at \$ 200.59 f.o.b. plant plus 10% for export boxing and inland freight. the quoted price was subject to adjustment at the time of despatch and that indentor's estimated price was \$ 173.00 and asked, in view of the desparity, to confirm acceptance of quoted price. Apparently this action was taken with a view to advise the Indentor to decide whether he could provide required foreign exchange on the basis of latest price or consider further reduction in quantity.

Diesel Locomotive Works, *vide* telex dated 16-8-1973. received on 17-8-1973, confirmed acceptance of price.

Fresh tenders were invited on 27-8-1973. The reasons for calling for fresh tenders are not on record. Apparently, fresh tenders were considered essential as the Indentor had not provided a proprietary article certificate in favour of General Motors. Enquiry was not sent to M/S General Motors. The reasons for not addressing to General Motors are also not on record. However, M/S General Motors had already been requested to send a quote during the discussions the firm had with Supply Wing on 30-4-1973.

Tenders were opened on 20-9-1973 and evaluated by October 4, 1973. The cheaper offer was from M/S Hunt Spiller at a price of \$ 198.64, inclusive of 2% commission for their Indian Agents, payable in Indian Rupees, as against the higher offer of General Motors. Therefore, it was necessary to have a confirmation from the Indentor regarding the acceptability of the cheaper quote of Hunt Spiller. Telex reference was made on October 4, 1973.

Having provided the details of the quotation and material specification of M/S Hunt Spiller and their prices, it was left to Diesel Locomotive Works to decide if this cheaper offer was acceptable.

Diesel Locomotive Works replied on 22-10-1973 stating there was no bar on placement of order on firms other than General Motors, and instructed that quantity of 48 numbers was to be airlifted. Diesel Locomotive Works advised *vide* telex dated 8-11-1973 that order might be placed on M/S Hunt Spiller if the Specifications were the same as those of M/S General Motors.

M/S Hunt Spiller, prior to the placement of order, confirmed *vide* their telex dated October 31, 1973, that the cylinder heads offered were interchangeable with and equal to standard OEM (Original Equipment Manufacture). Moreover on November 2, 1973, Mr. Anup Singh, Deputy Chief Mechanical Engineer, Northern Railway, in the Baroda House, New Delhi, advised on telephone that if M/S Hunt Spiller had supplied the Cylinder heads to any other Railways in the world, these cylinder heads would be acceptable to them. M/s Hunt Spiller did confirm supply of these cylinder heads to Victorian Railways, New South Wales Railways and the Queensland Railways in Australia and to the Santa Fe Railways in the United States. This information was furnished to Diesel Locomotive Works *vide* telex dated October 16, 1973, asking specifically if despite the above facts the order was to be placed on M/s. General Motors. M/s. General Motors' revised quote was received by Supply Wing on 17-10-1973 for many items, including cylinder heads in pursuance of their telephonic conversation on 30-4-1973 and 4-10-1973. In reply, the Indentor asked Supply Wing to

procure cylinder heads to required specifications stating that there was no bar on placement of orders on firms other than M/s. General Motors. The Indentor also requested for airlifting of 48 numbers immediately. Offer made by M/s. General Motors in their quote dated 16-10-1973 was for delivery in 210 days. Taking into consideration the facts that the material specifications of M/s. Hunt Spiller's offer had been referred to the Indentor earlier *vide* telex dated October 4, 1973, and that the conveyed acceptance of M/s Hunt Spiller's offer if the stores offered had been delivered to other railways in the world, that this was the only firm who offered to supply the stores with early delivery as desired by the Indentor and that the firm had categorically confirmed that the cylinder heads offered were interchangeable with and equal to the standard OEM, the order was placed on this firm.

Additional 48 numbers were also covered on the same firm due to urgency, on trial basis, with the prior approval of Diesel Locomotive Works.

### APPENDIX III

(See paragraph 1.51)

*Chronological summary of events in the case of DLW's indent for WDM-4 loco cylinder heads placed on ISM-Washington.*

(i) Indent placed by DLW . . . . .	28-9-72
(ii) Indent acknowledged by ISM . . . . .	18-10-72
(iii) Tender Enquiry issued to trade . . . . .	25-10-72
(iv) Tenders opened without having received any offer for cylinder heads.	1-12-72
(v) Date of tender opening extended for General Motors . . . . .	29-12-72
(vi) Late offer of General Motors received on . . . . .	29-1-73
(vii) ISM cabled DLW for confirming prices, additional F/E and correctness of part numbers in respect of certain items by 20-4-73 stating it to be last date of validity.	17-4-73 (cable received by DLW on 20-4-73)
(viii) DLW cabled ISM for further extension of validity and for giving reasonable time for examination.	23-4-73
(ix) ISM cabled and reminded DLW to earlier cable of 17-4-73 stating that G.M. advised inability to extend validity beyond 28-4-1973	23-4-73 (cable received by DLW on 25-4-73)
(x) DLW cabled ISM advising that clarifications were being air-mailed.	11-5-73
(xi) DLW air-mailed necessary clarifications confirming part numbers and revising prices based on 64th edition of P.L. Book and confirming acceptance of prices. (ISM is stated to have not recd. this letter)	19-5-73
(xii) Further to letter dated 19-5-73 DLW cabled ISM to reduce the quantity proportionately to keep within the allotted F/E.	30-5-73
(xiii) ISM sent the expired offer of ISM to DLW asking them to reduce the quantities on the indent themselves instead of ISM doing it on prorata basis.	13-6-73
(xiv) N. Rly. furnished comments and revised quantities with reference to ISM's letter dated 13-6-1973 direct.	12-7-73
(xv) DLW cabled ISM to arrange immediate coverage of cylinder heads.	24-7-73
(xvi) ISM cabled DLW with reference to cable dated 24-7-73 to convey acceptance of quoted price of 200.59 plus 10% boxing and inland freight and subject to price adjustment at the time of despatch against the price of \$ 173 shown in the indent.	12-8-73

- (xvii) DLW cabled ISM advising acceptance of the rate and requesting immediate coverage and asking to intimate quantity available for air-lifting. 16-8-73
- (xviii) ISM invited tender on . . . . . 27-8-73
- (xix) Offer received from M/s Hunt Spiller on. . . . . 20-9-73
- (xx) ISM cabled DLW to confirm acceptance of the offer of Hunt Spiller with reference to material specification. 4-10-73  
(received by DLW on 8-10-73)
- (xxi) DLW cabled ISM with reference to latter's cable dated 4-10-73 asking why order for cylinder heads was not still placed on General Motors. ISM were told to order atleast 48 nos. of General Motors immediately for air-lifting. ISM were asked in the meantime to advise firm's name for examination of the offer detailed in cable dated 4-10-73. 11-10-73
- (xxii) With reference to DLW's cable dated 11-10-73 ISM advised that even though the cylinder heads were available on GM's replacement parts Price Book yet limited tender enquiry was issued. The offer of Hunt Spiller was found attractive with respect to price and delivery and they have supplied material to Railways in other countries. ISM asked DLW to confirm whether order may still be placed on G.M. 16-10-73  
(received by DLW on 18-10-73)
- (xxiii) DLW cabled ISM to procure cylinder heads to required specification from any firm and to arrange air lifting of 48 nos. 19-10-73
- (xxiv) ISM cabled DLW that Hunt Spiller's offer was lower and 50 nos. were ready for shipment against GM's higher offer with 210 days delivery. ISM asked specific confirmation of acceptance of material offered by Hunt Spiller. 26-10-73
- (xxv) DLW cabled ISM to place order on Hunt Spiller after verifying that dimensions and material specifications offered were the same as that of G.M. and if price was attractive. 31-10-73
- (xxvi) ISM cabled DLW and N. Rly that order for 48 nos. was being placed on Hunt Spiller for which sanction for air-lifting should be expedited and also asked to report on the performance of these cylinders on receipt. 9-11-73  
(received by DLW on 12-11-73)
- (xxvii) ISM placed order for 48 nos. on Hunt Spiller . . . . . 16-11-73
- (xxviii) ISM cabled DLW that trial order for 48 nos. had been placed on Hunt Spiller in the absence of DLW's confirmation of material specification. Also asked DLW to advise whether order for balance quantity is placed on G.M. or Hunt Spiller. 20-11-73  
(received by DLW on 22-11-73)
- (xxix) DLW cabled ISM to get validity of Hunt Spiller's offer extended upto 30-12-73. 13-12-73
- (xxx) DLW cabled ISM to order 48 nos. more on Hunt Spiller ex-stock and 104 nos. on M/s G.M. 26-12-73
- (xxxi) ISM cabled DLW that 104 nos. had been ordered on G.M. on 4-1-74 with delivery 90 days and 48 nos. more ordered on Hunt Spiller on 22-1-74 ex-stock ready for air-lifting. 25-1-74  
(received by DLW on 27-1-74)



## APPENDIX IV

### *Conclusions/Recommendations*

S. No.	Para No.	Ministry concerned	Recommendation
1	2	3	4
1.	1.52	Railway.	<p>The Audit para mentions that 72 WDM-4 locomotives imported from U.S.A. were commissioned during August 1962 to June 1963. These locomotives were fitted with cylinder heads, an important component, supplied by the same firm which delivered the locomotives in 1974, 96 cylinder heads were procured from a West German firm on an emergency basis. Although the normal service life of these cylinder heads had not been specified by the manufacturer/supplier, the Railway Administration had assessed the average service life of a cylinder head as three years on the basis of their experience of many years of maintenance of WDM-4 locomotive. From the figures given in the Audit paragraph it is, however, seen that the average service life of 42.5 per cent of the cylinder heads received in 1971 and of 66.5 per cent received in 1972 from the firm in U.S.A., was less than three years. The Committee also note that out of 1499 cylinder heads received from the U.S.A. firm between 1971 and 1974, as many as 708 cylinder heads, i.e. about 47 per cent of the total supply, cracked within three years. Out of these 708 heads, 39 heads cracked within one year, 378 heads cracked within one to two years and 291 heads cracked within two to three years. That</p>

a large number of cylinder heads cracked prematurely much before their expected service life is a matter which has caused great concern to the Committee.

2. 1.53 Railways

According to the supplier, the higher incidence of failure of cylinder heads on Indian Railways was attributable to the adoption of defective maintenance practices. The Ministry of Railways, however, maintain that correct maintenance practices pertaining to cylinder heads as advised by the firm were being followed and that the contention of the firm in this behalf had not been accepted. It has also been stated that this aspect of the matter was being pursued with the firm. The Committee would like to be apprised of the outcome of these discussions.

3. 1.54 -do-

Explaining the reasons for the in-adequate life of cylinder heads supplied by the USA firm, the Committee have been informed during evidence that the design parameters of the WDM-4 locomotives had a direct impact on the life of the cylinder head. Besides, the operating conditions had also a very vital role in determining the life of diesel loco components including cylinder heads. It is stated that on some WDM-4 locos, there were cases of cylinder heads cracking in less than 3 years because of such locos being deployed on heavy duty services. It has been admitted by the representative of the Ministry of Railways during evidence that the utilisation of WDM-4 locomotives has gradually increased. Earlier the engines were put to much lesser loads than they were put to after 1968. The number of diesel locos on mail and express trains increased from nil in 1962 to 2 in 1966 and to 16 in November 1973.

During 1973 the utilisation of mail and express locos was 761 kms. per day per engine. The speed of Howrah-Kalka Mail which was 90 kms. per hour booked and 100 kms. per hour maximum was raised to 100 kms. per hour booked and 110 kms. per hour maximum in November 1971. Similarly, the Rajdhani Express train was introduced using the same locomotive. During the earlier years of usage of WDM-4 locos, these were mostly utilised for haulage of loaded coal wagons from Mughalsarai to up country and the load used to be 2000 to 2250 tonnes. The same load has gradually increased and is now about 3600 tonnes. The work done by the same loco and same cylinder is much higher than in the earlier years. On some locos, there were cases of cylinder heads cracking in less than 3 years because of such locos being deployed on heavy duty services. Keeping in view the increasing load that is being put on diesel locomotives and the incidence of cracking of cylinder heads, it is imperative that immediate remedial measures should be thought of so as to arrest the premature failing of the cylinder heads in diesel locomotives. The Committee would like to know the details of the steps that the Ministry of Railways propose to take in this direction.

4.

1.55

Railways

The Committee observe that in April, 1975, the Northern Railway Administration identified thermal overload and inadequate cooling arrangements as prime contributors to the premature cracking of these cylinder heads and had suggested to the Railway Board that loads of mail and express trains would require reduction by one bogie and as a further means of reducing the thermal load, the fuel rack setting for WDM-4 locomotive

should also be slightly reduced. The Committee desire that the precise action taken in pursuance of these suggestions by the Railway Administration should be intimated to them.

5. 1.56 Railways

The Committee have been informed that out of a total of 5,264 cylinder heads supplied by the U.S.A. firm since 1963, 62 cylinder heads had failed within the warranty period of 12 months. The claims for 62 cylinder heads were preferred but the firm accepted claim only for 14 numbers, the claim had been rejected for 19 numbers and the claim was still pending for the remaining 29 numbers. The value of the outstanding claim of 48 cylinder heads is approximately \$ 16,682. The Committee desire that the matter may be vigorously pursued with the firm and the final outcome intimated to them.

6. 1.57 -d-

The Committee find that in addition to the cylinder heads supplied by General Motors, 96 cylinder heads had been imported from another firm viz. M/s. Hunt Spiller these cylinder heads gave way prematurely earlier than the expected life. Out of the 96 cylinder heads supplied by this firm 73 (76 per cent) cracked after giving service ranging between 36 days and 44 days only (the lowest and the highest kilometrage done being 14,040 to 1,60,290 against the warranty of 1,60,000 kilometres). The comparatively greater premature failures of the cylinder heads are according to the Ministry of Railways due to manufacturing defects. However, it is with great difficulty that India Supply Mission, Washington has been able to persuade the firm to agree to replace 90 cylinder heads without further inspection and free of cost. The Committee would like

to know whether all these 90 cylinder heads have since been replaced and are working satisfactorily.

7. 1.58 Railways/External Affairs

From the information made available to the Committee it is seen that there has been protracted correspondence between ISM Washington/Railway Administration and M/s. Hunt Spiller in regard to replacements of the defective cylinder heads. It would appear that the main point of contention has been the interpretation of the warranty clause, which according to the Chairman, Railway Board was different from the warranty clause normally included in such contracts. The Chairman, Railway Board stated in evidence : "That (warranty) clause said that whenever there was a defective thing, it should be sent back and the suppliers should replace it. In our warranty clause—which we have here we do not have such a thing.....we may have to change this warranty clause in future." Even though the Ministry of External Affairs have stated that the "warranty clause stipulated in the contract is as per the standard terms and conditions that govern procurements of all stores by the Supply Wing", the Committee nevertheless would like that the matter should be reviewed in depth in the context of the difficulties that have arisen in this particular case in order to obviate recurrence of such cases in future. The action taken in this behalf may be intimated to the Committee.

8. 1.59 -do-

The Committee would also like the matter to be investigated further as to how far it was proper and technically justified for ISM Washington to place the order for supply of cylinder heads on M/s. Hunt Spiller

about whose technical capability of manufacturing the requisite components they had no knowledge. It has been stated that the reports about the performance of the cylinder heads supplied by M/s. Hunt Spiller to Santa Fe, Chicago and National Railways, Mexico were called for on 9 January 1974, by ISM Washington, but no reply was received from them.

9. 1.60 Railways

The Committee have been informed that the entire requirement of cylinder heads for WDM-4 locomotives was being imported as the indigenous manufacture of these hard core items had not progressed much. Although success is stated to have been achieved in the development of ALCO cylinder heads at the Chittaranjan Locomotive Works, a breakthrough in perfecting the technique of producing WDM-4 cylinder heads has yet to be made. According to the information furnished by the Ministry of Railways, it is expected that during the course of next 12—18 months, it may be possible for Chittaranjan Locomotive Works to produce cylinder heads for WDM-4 locomotives. However, during the course of evidence the Committee were informed that the Chittaranjan Locomotive Works have been entrusted with the development of the work of this cylinder heads only recently. Knowing full well the urgency of the requirements, the Committee feel that this work should have been given a very high priority than assigned earlier. They would like to know the results of the efforts made by Chittaranjan Locomotive Works in this direction.

123

10. 1.61 Railways External Affairs

Yet another important point highlighted in the Audit Paragraph relates to delay in indenting for the cylinder heads leading to the emergency

---

procurement of cylinder heads which had to be airlifted from West Germany at a cost of Rs. 2.25 lakhs. According to the Railways Board the emergency purchases of cylinder heads were necessitated because of the low stock position and this had been brought about as the India Supply Mission, Washington did not place an order till November, 1973 against an indent placed by DLW in September, 1972. The ISM Washington have, however, pleaded that the delay in placing the order occurred because several back references had to be made to the indenter for confirmation of prices, reduction of quantities and allotment of additional foreign exchange.

11. 1.62 -do-

*Prima facie* it appears that the indent placed by Diesel Locomotives Works on 28 September 1972 was processed in a haphazard fashion along with the indents for 554 items for the WDM-4 locomotives. It stands to reason that if cylinder heads were required so urgently, the indent for them should have been delinked from the other indents and the ISM should have been told about the urgency. The references and back references made by the Railway Administration and the ISM, Washington resulted in delay which ultimately proved very costly. It is also seen that ISM, Washington made two references to the Railway Administration asking for reduction in the quantities so as to cover the purchases within the available foreign exchange. The Ministry of Railways have stated that the proportionate reduction in the quantities could have been made by ISM, Washington without any reference to them. The Committee regret that due to lack of proper coordination between the ISM Washington and the Ministry of Railways, the supplies of

cylinder heads were inordinately delayed. An available expenditure of Rs. 2.20 lakhs had, therefore, to be incurred for emergency airlift of cylinder heads.

12. 1.63 -do-

Keeping in view the large number of avoidable lapses that occurred in this case, the Committee desire that the whole case may be reviewed so as to rationalise and streamline the procedure regarding purchases through Indian Supply Mission, Washington by the indenting departments. The Committee would like to be apprised within six months of the presentation of this Report of the conclusive action taken in this regard.

13. 1.94 Railways

The Committee find that out of 3,200 cylinder head castings received between May, 1971 and September, 1972 by the Diesel Locomotives Works from a firm in USA, 540 cylinder head were rejected during machining operations due to various manufacturing defects. Warranty claims on the suppliers for these 540 cylinder head castings were preferred between March, 1972 and December, 1973. Out of the rejected cylinder heads, the claim for 102 cylinder heads was withdrawn on the advice of the supplier firm that the casting variations were within the permissible tolerances and that these cylinder heads could be used on locomotives without any adverse effect on their life and functioning. However, in the absence of any separate records having been maintained for these 102 cylinder heads it is difficult to judge whether these cylinder heads had given trouble-free service as per warranty clause. All that the Committee have been told is that "they have been in service for three years". The Committee would



1	2	3	4
---	---	---	---

like to be informed as to how the Railway Administration satisfied themselves that these cylinder heads which were initially rejected by them were later on considered fit for use on the locomotives.

14. 1.95 Railways

The Committee further observe that besides the above 102 cylinder heads, 131 cylinder heads were rejected but subsequently reclaimed after the supplier had explained the machining process. The balance of 307 rejected cylinder heads were got replaced by the firm after a great deal of correspondence and discussion. It is seen that although the warranty claims for replacement of rejected cylinder heads were preferred by the DLW Administration between March, 1972 and December, 1973, the firm gave an assurance to replace 200 cylinder heads only in a meeting held in October, 1975. The excessively long time taken by the supplier firm to honour the warranty claims of the DLW Administration lead the Committee to conclude that either the warranty clause was worded in ambiguous terms or the supplier firm was trying to take undue advantage of their monopolistic position. In this context it is to be noted that in November, 1973, a representative of the firm had suggested that it would be possible to accept the claim for the rejected cylinder heads if the DLW Administration placed a further order for 1000 cylinder heads. Again in April, 1974 when a fresh order for supply of 1120 cylinder heads was placed on the same firm the firm expressed its unwillingness to accept the order until the claim for rejected cylinder heads was withdrawn. This gives rise to suspicion about the *bona fides* of the firm which, it appears to the Committee, wanted to take advantage of the helplessness of the indenter in the matter of supply of a crucial component. The Committee would like

the Railway Board to make an exhaustive review of the terms of warranty clauses incorporated in purchase agreements with a view to ensure that they are worded in unambiguous terms and are not susceptible to different interpretations at different hands.

15. 1.96 -Do-

The Committee's attention has also been drawn to the agreement entered into between DLW and M/s. Overseas Diesel Corporation, New York for the supply of components of the Locomotives. Under the terms of this agreement a restriction had been imposed on the Government of India not to release designs, drawings and other technical data relating to components of diesel engines to certain specified countries in East Europe. This in effect implied that for the requirement of the components of diesel locomotives the Indian Railways had to depend solely on M/s. Overseas Diesel Corporation, New York or its nominated allies. When asked to explain why such a restrictive clause in the agreement was accepted, the Railway Board have explained that from the records available it has not been possible to locate any reasons why such a clause was accepted. The Committee urge that the Railway Board should look into this aspect with a view to taking necessary remedial measures.

16. 1.97 -Do-

The audit paragraph also brings into focus the almost pathetic dependence of Railways on imports in so far as certain vital components of diesel locomotives are concerned. The Committee have been informed that the production of cylinder head castings has now been started in Chittaranjan but a break-through has yet to be achieved as the rate of rejections is too high. The Committee need hardly emphasise that more concerted efforts

---

1	2	3	4
17.	1.165	Railways	<p>should be made for achieving self-reliance in the manufacture of components and spare parts of the diesel locomotives.</p> <p>An order was placed in March, 1971 on a Belgium firm for manufacture and supply of 3604 tyres required for Electric Multiple Unit (EMU) coaches on Eastern, Central and Western Railways. The global tenders for the procurement of these tyres were issued for advertisement on 26 November, 1970 and opened on 16 January, 1971. In April, 1971 the RDSO advised an amendment to the specification of the incidental alloying elements for these tyres and when in May, 1971, the Ministry of Railways requested the firm to supply the tyres according to the amended specification, the firm declined to accept the change in specification for the reason that the manufacture of types was already in progress.</p>
18.	1.166	-Do-	<p>The Committee have since been informed that following the cases of cracking of EMU tyre supplied earlier from Japan, during the year 1968-69 on the South Eastern Railway, the RDSO had been making detailed studies and investigations over a period of about two years into the causes of the incidence of cracked tyres. As a result of these investigations the RDSO had suggested an amendment to the specification which had the effect of restricting the percentage of chromium content used in EMU tyres to 0.15. The Committee are unable to understand how the Ministry of Railways could invite a global tender for the supply of EMU tyres of a particular specification knowing fully well that the RDSO was engaged in investigations on the incidence of the cracked tyres which had been supplied earlier from Japan. In view of the fact that the specifications for the EMU</p>

tyres had to be amended on the basis of the investigations conducted by RDSO, the Committee feel that the Ministry of Railways should have consulted the RDSO before issuing the global tender which they did on 26 November, 1970, i.e., some four months before the RDSO advised amendment to the specifications. The Chairman, Railway Board has conceded during evidence that consultation with RDSO could have been better. That the investigations being carried out by the RDSO were not of a routine nature is borne out by the fact that when the offer of the firm to supply tyres with 1.1 per cent to 1.4 per cent chromium content was referred to RDSO, the latter rejected the offer and insisted that the specification as amended by them be adopted. It has also been stated that the tyres conforming to the amended specification of RDSO have not given any trouble. This vindicates the position that if RDSO had been consulted before the floating of tenders, the inconvenience and financial loss suffered as a result of defective supplies of tyres by the Belgium firm could perhaps have been averted.

129

19. 1.167 -Do-

The Committee also feel that there has been a communication gap between the RDSO and the Ministry of Railways even though it has been claimed that the Ministry of Railways are continuously in touch with the activities of RDSO. It is seen that the RDSO had come to the conclusion sometime in February 1971 that an amendment to the specification of EMU tyres was necessary. However, this was communicated to the Ministry of Railways in April 1971 after the placement of the contract. If the amendment to the specification had been communicated before the Ministry of Railways had finalised the contract with the Belgium firm on 31 March,

---

1971, it would have enabled the Ministry of Railways to have the changes in the specification incorporated in the agreement. The Committee regret that neither the Ministry of Railways nor RDSO took initiative in this respect. The Committee would like the matter to be thoroughly gone into, fix responsibility for the lapse and devise remedial measures to obviate recurrence. The Committee would like to be informed of the action taken.

20. 1.168 Railways

The Committee note that the Ministry of Railways requested the firm in May 1971, i.e., within less than two months of the acceptance of the offer of the firm to supply the tyres according to the amended specifications but the firm declined to accept the change in specifications for the reason that the manufacture of tyres was already in progress. The Committee further note that although under clause 8 of the General Conditions of Contract, the Ministry of Railways could have negotiated with the firm for alteration in the specifications, they did not pursue the matter feeling that a change in specification would infringe the World Bank guidelines in regard to IDA credit under which the procurement was ordered. Surprisingly enough, instead of putting pressure on the supplier firm for acceptance of a change in the specification which was considered essential, the Ministry of Railways agreed to reschedule the delivery period twice on the request of the firm. By doing so the Railway Board lost the opportunity of either making the supplier to agree to change in the specification or to cancel the contract without financial repercussions for tyres which were otherwise unacceptable. The Committee feel that the Railway Board has not been vigilant in safeguarding the interest of the Railways and has shown undue indulgence to the supplying firm in accepting delayed supplies of

tyres made to unacceptable specification. This has resulted in a loss of Rs. 7 lakhs which in the opinion of the Committee was avoidable. The Committee desire that responsibility for this loss by failing to take advantage of firm's failure to adhere to the original contractual delivery schedule should be fixed.

21. 1.169 Do.

It is surprising that in the present case the patent defects which could be discovered by the Eastern Railway by visual inspection could not be detected at the initial inspection either by the Inspection Agency or the Railway Adviser. The Committee have been informed during evidence that at the time of agreement with the Belgium firm for supply of tyres, no provision for ultrasonic test had been made as per practice then prevailing. The reason for this was that in the past there was no occasion for rejection on such a large scale. Since the firm had refused to make supplies to the specifications revised within a period of two months of the placing of the order, it was the duty of the Railway Board to have ensured that the tyres supplied by the firm were subjected to rigorous tests so that defective supplies could be eliminated. For that purpose it was essential for the Railway Board to have immediately asked for other forms of tests necessary, such as ultrasonic tests, to make the tyres acceptable, knowing that the chromium content of the steel used by that firm was excessive with reference to the revised specification.

22. 1.170 Do.

The Committee have been informed that out of the total supply of 3604 tyres only the tyres which were supplied to the Eastern Railway and which were of the same cast showed defects. From the information made available to them, the Committee note that after a great deal of persuasion and

1	2	3	4
			discussion, the firm has agreed to a free replacement of 358 tyres. The matter is still being pursued with the firm. The Committee would like to be apprised of the final outcome.
23.	1.171	Railways	The Committee would also like to know whether such of the tyres which were found defective by the Eastern Railway but were not rejected by RDSO have since been utilised.
24.	1.172	Do.	The Committee find that in March 1974, the Ministry of Railways wrote to the Chief Accounts Officer, High Commission of India in London to arrange to recover the full cost of the defective tyres from the outstanding bills of the firm for supplies against another contract, if the payment of the EMU tyres had already been made to them. On 24 April, 1974, the Chief Accounts Officer informed the Railway Board through a letter that they had no bills outstanding against this particular contract but that they have been able to trace out a contract of 22 June, 1972 against which BF 196, 964 remained to be paid to the firm. It was only on 19 April, 1975, i.e., after about a year the Ministry of Railways asked the Chief Accounts Officer to withhold this payment, which had already been authorised by the Chief Accounts Officer on 13 August, 1974. How the delay of a year in asking the Chief Accounts Officer to withhold payment occurred needs to be investigated to fix responsibility.
25.	1.173	Railways External Affairs	The Committee also feel that after having written to the Ministry of Railways for further advice on the 24 April, 1974, the Chief Accounts Officer should have withheld authorisation of payment to the firm on 13 August, 1974. This matter also needs to be looked into.

26. 1.174 Do. The Committee have been informed that the firm had submitted a bank guarantee valued at BF 1,805,604 (Rs. 2.7 lakhs) which was current upto 31 March, 1977. This guarantee was to be utilised to ensure that the firm makes replacement of 388 tyres. The Committee would like to know whether the necessary replacements have since been made.
27. 1.194 Railways The Committee note that the Northern Railway Administration placed an indent in March, 1973 on India Supply Mission, Washington for procurement of some spare parts for WDM-4 Diesel Electric Locomotives from a firm in USA. The Committee have been informed that the need for the spares, which were required on replacement account, was felt by the consuming department as far back as in August, 1971. The time taken for processing the indent and obtaining foreign exchange was about 1-1/2 years. In view of the fact that in the absence of these essential spares the locomotives had necessarily to suffer detentions in workshops for longer periods than is warranted, the Committee would like the Railway Board to critically review this case with a view to find out if the time taken in processing the indent was the barest minimum and if, not what remedial measures need be taken to obviate delays.
28. 1.195 Railways External Affairs The Committee further note that although the indent had been placed on the India Supply Mission, Washington in March, 1973, orders for the spares could be placed on the supplier firm some time after October, 1974, even though the items to be procured were of a proprietary nature and had to be purchased only from one particular firm. It is seen that between the dates of placing indent on ISM, Washington and of placing orders on



the firm, lot of time was taken in avoidable correspondence involving several references between the ISM, Washington and the Northern Railway Administration. The Committee feel that if clear-cut instructions in regard to the minimum requirements of the spares which could be bought within the amount of foreign exchange initially released, had been given by the Railway Administration, the ISM, Washington would not have been obliged to seek specific orders on more than one occasion in regard to the number of spare parts to be purchased. Further, the Northern Railway Administration, while replying to the first reference made by the ISM, Washington on 29 May, 1973, took unnecessarily a long time in conveying their revised requirements with the result that the period upto which quotations were kept open by the firm viz. upto 22 August, 1973 had expired. It is further seen that after the Railway Administration had conveyed their requirements on 31 August, 1973 the ISM, Washington could place the orders for those spares only in February, 1974 and that too on higher rates. This order was, however, not accepted by the firm on the ground that the letter of credit had no been opened by the ISM, Washington within the validity period. As a result thereof fresh offers had to be invited again. Thus there has been delay at various stages which ultimately had the effect of enhancing the total expenditure on the reduced quantity of spares by more than Rs. 1,46,742. The Committee cannot but deprecate incurring such increased expenditure which could have been avoided, if the case had been handled more carefully and expeditiously.

29.

1.196

Railways

External Affairs

The Committee are also concerned to note the Railways also sustained indirect loss on account of delay in the receipt of spare parts.

It is estimated that every month 8 locolays and 192 man-hours were lost because the locomotives remained in sheds during scheduled overhauls for longer periods than was warranted. The Committee desire that the Ministry of Railways should review this case in conjunction with the ISM, Washington with a view to streamline the procedures involved in processing of indents and placing of orders in the light of the deficiencies and lapses which came to notice in the present case. The precise action taken in this behalf may be intimated to the Committee.

30      1.216 Railways  
                    Supply

The Committee note tha between July, 1973 and Augus, 1974, 5,900 screw couplings were delivered to the two Depots of the Eastern Railway at Liluah and Halisahar by a Calcutta firm against a running contract entered into by DGS&D in August, 1972. These screw couplings had been duly inspected by the Director of Inspection of the DGS&D. The Committee, however, find that after tests at he Railway Workshcps, the entire supply of the screw couplings was found to be unsuitable due to major dimensional defects and not being in accordance with the spccifica-tion drawing. The Committee would like to be informed as to how such sub-standard material could pass through inspection. It is rather intriguing that a CBI enquiry against the same firm in connection with another contract for supply of the screw couplings was then in progress and yet the Director of Inspection was not sufficiently vigilant in dealing with this firm. *Prima facie* the inspection appears to have been very lax and perfunctory, which needs to be carefully investigated for fixing responsibility. The Department of Supply have informed that the whole matter was being examined from vigilance angle. The Committee would like

these proceedings to be processed urgently and the action taken in pursuance thereof intimated to them.

31	1.217	Railways	<p>The Committee are distressed to note that the first supply of screw couplings was received in July, 1973 but the representative samples for test were drawn in January, 1974. The Committee are not convinced by the explanation that since there was a CBI enquiry going on against the firm for supplies against some other contract, the samples could not be tested till the final clearance was received in December, 1973. The Committee consider that the reason for delay in drawing of samples for test are specious. The Committee feel that if the samples from the first lot of supply had been tested in the workshops, the defects would have come to light earlier and further supplies suspended. The Committee desire that this aspect of the case may also be gone into in depth to identify the reasons for this lapse.</p>
----	-------	----------	---

32	1.218	-d--
----	-------	------

The Committee are also perturbed at the heavy expenditure which the Railways had to incur by direct purchase of the couplings in order to meet their pressing requirements. It is seen that against Rs. 170/- payable per screw coupling under the running contract of DGS&D, the Railways procured the screw couplings at the rate of Rs. 450/- each, which entailed extra expenditure of Rs. 9.24 lakhs. The Committee find that while ordering fresh purchases the Railway Administration failed to observe the routine formalities which consisted of formal reaction of the stores and intimation of such rejection to the supplier within 45 days of the delivery of the stores as also notification of its intention to make purchases at the risk and cost of the



the delivery date without ascertaining whether the stores were still required against the contract. The Committee would also like to know whether DGS&D had, before extending the delivery date in January 1975, taken necessary precautions in consultation with the Railways to ensure that such extension did not in any way jeopardise the legal remedy of the consignee to resort to risk purchase at the cost of the defaulting firm. It appears that by resorting to direct purchases within the currency of the DGS&D's contract with the firm, which was cancelled only on 28 May, 1975, the Railways have forfeited their right to recover the extra cost on these purchases. The only remedy now open to them is to claim general damages, for which DGS&D is stated to have initiated action. The Committee would like to be informed of the outcome of these proceedings.

35.

1.221

Railways

Supply

In view of the lack of functional co-ordination between the Railways and the DGS&D, as has been revealed in this case, the Committee desire that this case may be reviewed by a Joint Committee of Railways and Department of Supply to lay down appropriate procedures for obviating the recurrence of lapses noticed in the present case. The Committee would like to be informed of the action taken in this behalf.

36.

1.238

Railways

The Committee note that the Ministry of Railways placed an order for the purchase of 18 tonnes of wire mild steel (18 SWGs) in July 1973 with a private firm of Bombay. The firm supplied 18.46 tonnes of wire mild steel between 27 July and 12 September, 1973 valued at Rs. 42,352. The District Controller of Stores, Mahalaxmi accepted the stores after test and inspection and sent the same to the Assistant Store-Keeper, Kota. A

joint inspection held by a team of Technical Officers revealed that the materials were old, rusted and rotten. The stores were returned to the District Controller of Stores, Mahalaxmi but the firm refused to accept the material back. Ultimately, after further inspection the supply was rejected in October 1975. As the Railway Administration recovered Rs. 21,992.90 from the firm from its pending bills and also withheld other dues of Rs. 8,089.80 the firm has taken the case to a court of Law. The facts disclosed go to show that the stores were not properly inspected and tested before acceptance. Some of the glaring lapses on the part of the inspecting authorities are mentioned below.

37. 1.239

-do-

The Committee find that twenty samples were drawn from the lots of 295 bundles of wires received during July, 1973 by the District Controller of Stores, Mahalaxmi, but only one sample out of them was sent to Assistant Chemist and Metallurgist, Parel for testing the material for size, tensile strength and the wrapping test. It is not clear how the material was found acceptable for size and quality by the technical inspection when the materials supplied were in five sizes varying from 16 to 26 SWGs against the order for 1.25 mm. dia 18 SWG and the specification prescribed a tolerance limit of  $\pm 0.04$  mm only. Even according to Railway's own admission based on the utility of the material 2.348 tonnes were outside the acceptable range, that is, 13.44 per cent. The Committee cannot but conclude that the initial inspection was lax and perfunctory.

38. 1.240

-do-

The Committee regret that no record has been maintained of the samples drawn for inspection from the lots received in September, 1973. The

---

1	2	3	4
			<p>Committee take a serious view of this lapse and would like the Ministry of Railways to investigate the matter thoroughly for fixing responsibility.</p>
39.	1.241	Railways	<p>The Committee regret that the Chemical test of the material as required <i>vide</i> para 5.1 of IS-280 was not carried out. The Ministry of Railways have advanced the argument that as the material was used for binding wire and for tying reinforcement, the chemical test for impurities <i>viz.</i> sulphur and phosphorus was not important. The Committee are surprised that an essential condition of chemical test was waived. That this waiver was unjustified is proved by further development <i>viz.</i> that the material had to be rejected being 'old stock, badly rusted and rotten.' Had the material been chemically tested in larger measure at the initial stage, impurities of sulphur and phosphorus would have been noticed and suitable action taken before acceptance of the material.</p>
40.	1.242	-do-	<p>The Committee note that an Enquiry Committee has been constituted to investigate the matter fully. The Committee would like to know the findings of the Enquiry Committee and the action taken in pursuance thereof.</p>
41	1.258	-do-	<p>The Committee are perturbed to find that the proposal of the North Eastern Railway sent in September, 1959 for the provision of an air-conditioned tourist car for catering to the likely demand from tourists of different categories fructified after elapse of more than thirteen years. On the proposal submitted by the Railway Administration in September, 1959, the Ministry of Railways took more than four years in conveying their acceptance of the proposal. Thereafter, more than six years were</p>

taken in finalising the lay-out and drawings of the car and completing its manufacture. Further after the tourist car was turned out of the workshop in March, 1970, the Railway Administration took almost four years in conducting further trials and ultimately commissioning the car in February, 1974. The abnormally long time taken in processing the proposal for acquisition of a tourist car and the poor utilisation of the tourist car after commissioning only lead the Committee to conclude that *ab initio* there was no valid justification for the provision of a tourist car.

42. 1.259 -do-

The Committee are further surprised to learn that from 1960 to February, 1974 no requisition from any party for the use of the car had been received even though the North Eastern Railway Administration had made out a case for the provision of the air-conditioned tourist car mainly on the basis of its anticipated demand from tourists. The meagre utilisation of the car during the period 5 March, 1974 to 18 April, 1975 also reinforces the Committee's view that the justification of a tourist car by the North Eastern Railway for the use of tourists could not be substantiated. It is disconcerting that in the period of about 13 months the car was utilised only on 11 occasions out of which 4 were empty runs, 5 runs were for senior Railway officials and 2 runs for a foreign dignitary. The Committee would recommend that the Ministry of Railways should urgently review the utilisation of this tourist car which has been built up at a cost of more than Rs. 2 lakhs and which involves Rs. 6,000 per annum by way of maintenance charges.

43. 1.260 -do-

The Committee have been informed that there are four metre gauge air-conditioned tourist cars and thirty-seven first class metre gauge

---



tourist cars with the Indian Railways. The particulars of utilisation of these cars during 1972-73, 1973-74 and 1974-75 as furnished by the Ministry of Railways are revealing. In each of the three years these air-conditioned tourist cars and first class tourist cars were used by tourists only for one day. For five or six days they were used for carriage of V.I.Ps. Strangely enough, these were used by officials for 155 days in 1972-73, for 154 days in 1973-74 and for 144 days in 1974-75. This clearly demonstrates that these tourist cars are being put to purposes other than those for which they were intended, viz. carriage of tourists. The Committee deplore the improper utilisation of such costly national assets. They need hardly emphasise that the Ministry of Railways should immediately make an overall review of the need for maintaining the fleet of these tourist cars (of all gauges) more particularly in the context of their poor utilisation for the purpose for which they were originally intended. In case these cars cannot be economically used for tourist traffic, the Ministry may consider the feasibility of putting them to alternative uses by making suitable modifications. The Committee would like the Ministry to complete this review urgently.

