PTC. 415 (N)
450

GOVERNMENT OF INDIA

TARIFF COMMISSION

REPORT
on the
Continuance of Protection to the Automobile Spark Plug Industry

BOMBAY, 1963

IE MANAGER GOVERNMENT OF INDIA PRESS
Y THE MANAGER OF PUBLICATIONS DELHI-8
1963

·50 (*Foreign*) 8*s.* 2*d.* *or* 1 *$* 26 *cents.*

India, Tariff (———Commission)

Report on the continuance of protection to the Automobile Spark Plug Industry—1963

PERSONNEL OF THE COMMISSION

SHRI K. R. P. AIYANGAR	*Chairman.*
SHRI J. N. SEN GUPTA	*Member.*
DR. R. BALAKRISHNA	*Member.*

SECRETARY

SHRI PRAMOD SINGH

1—5 T. C. Bom./63


सत्यमेव जयते

GOVERNMENT OF INDIA

MINISTRY OF INTERNATIONAL TRADE

New Delhi, the 27th September, 1963.

RESOLUTION

Tariffs

No. 8(1)-Tar/63.—The Tariff Commission has submitted its Report on the continuance of protection to the Automobile Spark Plug Industry on the basis of an inquiry undertaken by it under Sections 11(e) and 13 of the Tariff Commission Act, 1951. Its recommendations are as follows:—

(1) Protection to the automobile spark plug industry should be extended for a further period of two years till 31st December, 1965. The rate of duty necessary for protection should, however, be 77·5 per cent *ad valorem* (standard) and 70 per cent *ad valorem* (preferential).

(2) Retail prices of automobile spark plugs should be reduced.

(3) The demand for spark plugs, which may also increase in future, exceeds the present installed capacity. As this capacity can be raised without much additional cost by the existing units and the industry is one where economies can accrue from mass production, it may be desirable to accord priority to the present producers in the context of any future expansion.

(4) Since the spark plug is an essential component in the automobile industry, it is considered that in the production programme of any alloy steel unit, bright drawn free cutting steel bars required by the industry should be given high priority.

(5) The whole question of permitting both the existing producers to manufacture insulators may be further reviewed by the authorities concerned in view of large surplus capacity resulting from such an arrangement rendering the capital investment infructuous.

(6) Since the alternative given to the industry to import its requirements of raw materials and machinery from United States of America involves a very considerable increase in costs, the facilities asked for by this protected industry may be favourably considered.

(7) In the interest of the development of the industry, the matter of affording sufficient incentives for exports and the question of suitably modifying agreements with foreign collaborators should receive the attention of authorities.

(8) Spark plug manufacturers should be assisted either to locate indigenous capacity for copper or M. S. washers with other automobile component manufacturers or to produce them in their own factories.

(9) Steps should be taken to ensure that indigenous manufacturers of aluminium should be pressed to provide calcined alumina of requisite purity for the manufacture of spark plug insulators.

2. Government accept recommendation (1) and necessary legislation in Parliament will be undertaken in due course. The reduced protective duty recommended by the Tariff Commission is being brought into force with effect from to-day by a Notification issued separately under Section 4(1) of the Indian Tariff Act, 1934.

3. Government have taken note of recommendations (2) to (7) for suitable action to the extent possible.

4. Government have taken note of recommendations (8) and (9) and attention of the manufacturers concerned is also invited to these recommendations.

ORDER

ORDERED that a copy of the Resolution be communicated to all concerned and that it be published *in the Gazette of India.*

(Sd.) C. S. RAMACHANDRAN,
Joint Secretary to the Govt. of India.

GOVERNMENT OF INDIA

MINISTRY OF INTERNATIONAL TRADE

New Delhi, the 27th September, 1963.

NOTIFICATION

Tariffs

No. 8(1)-Tar/63.—Whereas the Central Government is satisfied, after due inquiry, that the duty chargeable under the First Schedule to the Indian Tariff Act, 1934 (32 of 1934), in respect of Sparking plugs and parts thereof specified in item No. 75(16) of the said Schedule, and characterised as protective in the third column thereof, had become excessive for the purpose of securing the protection intended to be afforded by it to similar articles manufactured in India;

Now, therefore, in exercise of the powers conferred by sub-section(1) of section 4 of the said Act, the Central Government hereby reduces, with effect from the 27th September, 1963 the duty of customs on the said articles so that the duty chargeable thereon, from the said date, shall be 77½ per cent *ad valorem.*

(Sd.) C. S. RAMACHANDRAN,
Joint Secretary to the Govt. of India.

GOVERNMENT OF INDIA

MINISTRY OF FINANCE (DEPARTMENT OF REVENUE)

New Delhi, the 27th September, 1963.

NOTIFICATION

G.S.R. Customs No. 220/F. No. 9/4/63-Cus. I. —In exercise of the powers conferred by sub-section (1) of section 25 read with sub-section (3) of section 160 of the Customs Act, 1962 (52 of 1962), the Central Government, being satisfied that it is necessary in the public interest so to do, hereby makes the following amendment in the notification of the Government of India in the Ministry of Finance (Revenue Division) No. 196-Customs, dated the 24th December, 1955, namely:—

In the said notification,

(i) the words "as in force in India and as applied to the State of Pondicherry" and "or the State of Pondicherry" shall be omitted; and

(ii) for the figures and words "85 per cent *ad valorem*", the figures and words "70 per cent *ad valorem*" shall be substituted.

(Sd.) D. P. ANAND,
Joint Secretary to the Govt. of India.

CONTENTS

APPENDICES

REPORT ON THE CONTINUANCE OF PROTECTION TO THE AUTOMOBILE SPARK PLUG INDUSTRY

1. The automobile spark plug industry is an ancillary of the main automobile industry which has been granted protection for a ten-year period expiring on 31st December 1967. When protection to the main industry was considered in our Report (1953), it was decided to make separate recommendations regarding several ancillary industries. For the main industry, as against the prevailing rates of import duties on different categories of components and parts ranging from 25 per cent to 90 per cent, lower levels of protective duties were fixed in 1953 on the basis of an average incidence working out to 40 per cent on a c.k.d. pack of an automobile. When we submitted a review report on the automobile industry in October, 1956, the ancillary industries were again kept out of its scope since they had been dealt with individually. Till 1954 when this ancillary industry first applied for protection, automobile spark plugs carried a lower level of duty of 25 per cent (standard). On our recommendation protection was granted to the industry till the end of 1955 and the import duty was raised to 92½ per cent *ad valorem*, the preferential rate being 85 per cent *ad valorem*. In 1955 we undertook a review of the scheme of protection and Government accepted our recommendation to extend the period of protection and the protective duties at the same rate for a further period of 5 years ending 31st December, 1960. Our recommendation to allow duty exemption for insulators, not fitted with central electrodes, imported for the purpose of manufacturing spark plugs, was however accepted for a limited period only. Our last inquiry into the continuance of protection to this industry was undertaken in 1960 and on our recommendation Government agreed to continue protection for three more years, *i.e.*, upto 31st December 1963 at the existing rates of duty by the Indian Tariff (Amendment) Act, 1960.

Previous tariff inquiries

2. Since protection to the automobile spark plug industry is due to expire on 31st December 1963, we have taken up the present inquiry under Section 11(e) read with Section 13 of the Tariff Commission Act, 1951, which empowers us to review the case and make suitable modifications.

Present inquiry

3.1. Questionnaires were issued in December, 1962 to producers, importers and consumers of spark plugs and to persons and associations interested in the inquiry. The Senior Industrial Adviser (Engineering), Department of Technical Development (hereinafter referred to as D.T.D.), Ministry of Economic and Defence Co-ordination was requested to submit a memorandum on the progress of the industry since the last inquiry in 1960. The Consulting Engineer to the Government of India, Ministry of Transport and Communications was requested to furnish data regarding the number of different types of vehicles on the road

3. Method of inquiry

The Director General of Supplies and Disposals and the Ministry of Defence were requested to furnish particulars of their purchases of spark plugs. Collectors of Customs at the major ports were asked to give data regarding c.i.f. prices and landed costs of spark plugs imported through their ports, while our Trade Representatives in the U.K., U.S.A. and West Germany were asked to furnish information regarding internal prices in those countries as well as f.o.b. and c.i.f. prices of automobile spark plugs of 14 mm. and 18 mm. sizes. A list of those to whom questionnaires and letters were issued and from whom replies or memoranda were received is given in Appendix I. Particulars of the factories visited by the Commission and its officers are given in Appendix II.

3.2. As on previous occasions, out of the two manufacturing units in the industry, Motor Industries Company Ltd. (MICO), Bangalore was selected for costing. A copy of the Cost Accounts Officer's report (which covers both automobile spark plug and diesel fuel injection equipment, another protected category, on which we are separately making a Report) is submitted to Government as a confidential enclosure to this Report.

3.3. Our public inquiry into this industry was held on 28th March, 1963 and the cost discussions with representatives of MICO were held subsequently. A list of persons who attended the public inquiry and gave evidence is given in Appendix III.

4. The present scheme of protection covers spark plugs of 14 mm. and 18 mm. sizes including register types other than integrally screened types, but excludes plugs adapted for use on agricultural tractors. Production of spark plugs of sizes other than the two sizes mentioned above is very small and we have not received any request for either widening or limiting the scope of protection.

Scope of inquiry

5. In our last Report (1960) we made an ancillary recommendation that "the industry should make efforts to tap indigenous sources for the supply of raw materials such as cement fillers and high refractory cement powder". Despite its efforts the industry has yet made no tangible progress. There are many other raw materials which account for a larger element in costs. It is essential to find indigenous raw materials and components to give greater stability to the automobile spark plug industry. This matter is dealt with later.

Implementation of ancillary recommendations

6.1. From the time of the first inquiry in 1954, Motor Industries, Co. Ltd., (MICO), Bangalore, and Auto Accessories (India) Ltd. Bombay, continue to be the only producers of automobile spark plugs. Details of their set up have been given in earlier reports and only the more recent developments are therefore indicated below.

Position of the industry.

6.2. *Motor Industries Co. Ltd., Bangalore.*—This company, registered in November, 1951, commenced production of spark plugs in August, 1953. It also manufactures diesel fuel injection equipment. To start with it had an authorised capital of Rs. 125 lakhs which has been increased in 1963 to Rs. 225 lakhs, which is also stated to be its present paid-up capital. As regards foreign collaboration, the company has stated that there is no change since the last inquiry either in the terms of agreement or the financial participation of its collaborators. Robert Bosch, GmbH, Stuttgart, who still hold 57·5 per cent of the paid-up capital. A good part of the plant and machinery of this unit is utilised in the manufacture of diesel fuel injection equipment and automobile spark plugs. The latter activity accounts however, for the smaller part of the capital employed and sales output of this unit. As regards the gross block, it stood at Rs. 3·5 crores at the end of 1962, expanding four-fold in three years. Over the same period gross sales per year of all products had grown more than two-fold and stood at about Rs. 5 crores. The number of workers employed in the manufacture on spark plug side was only 35 in 1962 and has not changed materially. The annual capacity on single shift basis, which was taken as 375,000 spark plugs in 1960, has now been raised to 600,000 on a like basis and may be regarded as nearly double its capacity on full utilisation of plant. The company has implemented its manufacturing licence for the production of insulators, issued in May, 1961. The erection of a special high temperature tunnel kiln, with equipment for production of pulp, has been completed and the firm expects to commence production of insulators by the middle of 1963. The net profits earned by the company after providing for depreciation, development rebate and taxation during the years 1959-60, 1960-61 and 1961-62 stood at Rs. 38·64, Rs. 66·65 and Rs. 81·89 lakhs respectively and the dividend percentages stood at 10·50, 16·80 and 16·10 respectively. Being a Section 23-A company (now Section 109)it has stated that though it would like to build up reserves it has to declare high dividends to avoid super tax liability. This aspect has to be considered in assessing the fair price. (*See* paragraph 18.2).

6.3. *Auto Accessories (India) Ltd., Bombay.*—This company was registered in March, 1951 with an authorised capital of Rs. 10 lakhs and commenced production of spark. plugs in April, 1955. In December, 1961, the equity share capital was raised to Rs. 11·30 lakhs. Forbes, Forbes Compbell Ltd., whose share in the capital is 31·8 per cent, are the Secretaries and Treasurers. The firm continues to have technical collaboration with Smiths Motor Accessories, U.K., under a 10-year agreement entered into in October, 1956, paying a royalty of 4 per cent on net sales, which, with effect from the current financial year has been made subject to tax, thus reducing the burden to the company. The annual single shift capacity of this company, which was 360,000 plugs during the last inquiry, is now reported at 420,000. The average number of workers employed was more or less steady and stood at 34 in 1962. This unit also produces certain other items like cycle valves. After providing for depreciation and remuneration to Secretaries and Treasurers, the company incurred a small loss for the year ended 30th September, 1962 as against small profits for the last two preceding years.

Capacity

7. The annual capacity of the two producers as adopted in the last inquiry in 1960 and as furnished by the units and the D.T.D. in connection with the present inquiry are given below:—

(In Nos.)

Name of the unit	As adopted by the Commission in 1960 inquiry	As furnished for the present inquiry	
		By the units	By the Department of *Technical Development* Licensed and installed capacity
1. MICO Ltd., Bangalore .	750,000 (double shift)	600,000 (single shift)	996,000
2. Auto Accessories (India) Ltd., Bombay.	360,000 (single shift)	420,000 (single shift)	600,000

Instead of giving capacity on single shift basis, D.T.D. has indicated this on the basis of maximum utilisation of plant and machinery. The question was discussed at the public inquiry. Auto Accessories does not have enough spare capacity on its six spindle automat to step up the production to 600,000 spark plugs and its output has not exceeded 335,000. It will, therefore, be more realistic to adopt its annual capacity figure, even if it works more than one shift, at 500,000 pieces. The annual capacity figure of MICO may, taking note of its actual performance in 1961, be rounded off to 1·2 millions. The total capacity of the industry would then be 1·7 millions. The automobile spark plug industry is now included in the list of industries for which further licensing is not considered necessary.

Production

8. The statement below gives the output of spark plugs of 14 mm. 18mm. and other sizes during the years 1960, 1961 and 1962 as furnished by the units.

(In Nos.)

	MICO, Bangalore				Auto Accessories, Bombay			Total for MICO and Auto Accessories
Year	14 mm.	18 mm.	* Others	Total	14 mm.	18 mm.	Total	
1960	831,618	46,507	1,232	879,357	295,863	15,910	311,773	1,191,130
1961	1,102,641	28,484	414	1,131,539	298,860	22,208	321,068	1,452,607
1962	709,729	36,182	250	746,161	314,112	20,677	334,789	1,080,950

*Others represent 10 mm. and 7/8″ plugs assembled from imported components.

MICO worked an average of two shifts during each of the three years 1960 to 1962 while Auto Accessories worked one shift. The lower production of MICO during 1962 was stated to be due to lower demand. Both producers are however in a position to step up production in case here is a larger demand for spark plugs.

9. Domestic demand

9.1. In our Report (1960) we estimated the total demand for spark plugs as original equipment and for replacement purposes at 0·136 and 0·890 million plugs respectively. We considered that it would be reasonable to assume an increase at the rate of 5 to 10 per cent a year during the next three years, the demand for 1963 being estimated about 1·30 million plugs. (*See* paragraph 9·4 *ibid*).

9.2.1. The D.T.D. has based its estimates of current demand on the assessment made by the Development Council for Automobiles, Automobile Ancillary and Transport industries. The requirement of original equipment is based on the progress of production in petrol driven vehicles and that of replacement needs assessed on the estimated mileage of different categories of vehicles on the road and fair service life of plugs used by them. The annual mileages for various types of vehicles have been assumed as 10,000 miles for cars and jeeps, 30,000 miles for commercial vehicles, 5,000 miles for motor cycles and scooters. The service life for spark plugs has been assumed at 10,000 miles for cars, etc., 20,000 miles for commercial vehicles and 5,000 miles for motor cycles and scooters. The Association of Indian Automobile Manufacturers has estimated the consumption of spark plugs in 1962 at 1·2 millions and in its opinion the basis of estimates prepared by us in 1960 may be adopted for the present inquiry as well. Allowing for an annual increase of about 10 per cent thereon, the consumption in 1966 has been estimated by them to be well over 1·60 million plugs. Among the producers, MICO has meticulously estimated the consumption of spark plugs in the country at about 0·95 million in 1961 and about 1 million in 1962 rising to 1·336 millions by 1966. Neither MICO nor D.T.D. has adopted uniformly the basis of number of vehicles as given below.

9.2.2. The number of motor vehicles on the road in India as indicated by the Ministry of Transport and Communications in 1962 is given below:—

			Numbers
(i)	Motor cycles		93,600
(ii)	Auto rikshaws		7,300
(iii)	Jeeps		25,700
(iv)	Private motor cars		269,600
(v)	Motor cabs		23,100
(vi)	Buses:		
	(a) Petrol driven	14,700	
	(b) Diesel engined	43,400	
	(c) Others	200	58,300
(vii)	Goods vehicles:		
	(a) Petrol driven	72,100	
	(b) Diesel engined	99,000	
	(c) Others	500	171,600
(viii)	Miscellaneous vehicles:		
	(a) Petrol driven	15,000	
	(b) Diesel engined	17,700	
	(c) Others	6,600	39,300
		TOTAL	688,500
	Total of petrol driven vehicles		521,100

9.2.3. The apparent consumption of spark plugs during 1960, 1961 and 1962 made up of domestic sales and imports is given below:—

(In Million Nos.)

	1960	1961	1962	
Sales of the domestic product .	1·200	1·450	1·125	
Imports	0·148	0·445	0·061	(Jan.-Nov.).
TOTAL .	1·348	1·895	1·186	

There was a steep rise in output as well as in consumption in 1961 and a fall in 1962. Since imports of spark plugs have fallen and there has not been any marked difference either in the production of automobiles or the performance of the transport industry during 1961 and 1962, the normal offtake in the replacement market cannot vary widely. The position can be explained only on the basis that any surplus of spark plugs in 1962 should have gone into the distribution pipe line rather than into the hands of the consumers. It has also been suggested that there could be a slight decline in demand due to the growing number of diesel vehicles on the road as well as longer life of spark plugs than the mileage adopted for calculation purposes in our estimates. Despite certain disincentives, the relative operating cost factors still favour growth of diesel vehicles whose production has expanded. As the average effective demand for plugs for the 3 years 1960 to 1962 works out to 1·476 million pieces, the demand for 1963 has to be placed at about 1·6 million plugs. On the basis of the D.T.D.'s calculation, replacement demand alone would work to 1·8 millions for 1963 and the overall demand inclusive of demand for original equipment to nearly 2 million plugs. The effective demand for 1963 of 1·6 million plugs will thus be about 80 per cent of the theoretical estimate of 2 million plugs including 0·2 million as original equipment. In the same way 1965-66 demand of 2·56 million plugs (on the theoretical basis) can be brought down to a more realistic figure of about 2 million plugs.

9.2.4. We have discussed with representatives of D.T.D. and the industry and consider that the demand may, therefore, be assessed for the future at about 1·6 million plugs for 1963, 1·8 millions for 1964 and 2 millions for 1965.

9.2.5. It will be observed that this demand, which may also increase in future, exceeds present installed capacity of 1·7 millions. As this capacity can be raised without much additional cost by the two competing units and the industry is one where economies can accrue from mass production, it may be desirable to accord priority to the present producers in the context of any future expansion.

10. Raw materials and components.

10.1. The spark plug consists of three main parts, the insulator, the central electrode and the metallic body which is clamped to the cylinder head. The principal raw materials required in the manufacture of spark plug are—

(1) Hexagonal bright drawn free cutting steel bars for housing and gland nut;

(2) Rectangular nickel wire, round nickel manganese silicon alloy wire and bright drawn steel wire for electrodes;

(3) Bright drawn free cutting brass rods for central electrode terminal screw;

(4) Copper sheets for washers; and

(5) Sodium silicate solution, cement filler and high refractory cement powder for cementing compound.

The components required are—

(a) Insulators; and

(b) Different types of rings or washers required for seating of insulators or for gas tight clamping of the plug.

10.2. Of the total material cost (that is, raw materials and components) in the manufacture of sparking plugs, at present roughly 30 per cent constitutes raw materials and 70 per cent imported components. The main item of raw material is bright drawn free cutting steel bar now largely imported and the main imported component is the insulator. These two account at present for about 17 per cent and 63 per cent respectively of the material cost, which in turn, constitutes about 60 per cent of the total ex-factory cost of a plug. The average value of import content is about 35 per cent of the cost of a plug.

10·3. Except for an insignificant amount of raw material, *viz.*, sodium silicate solution and free cutting brass bars, the bulk of the requirements of plug manufacturers continues to be imported Hexagonal bright drawn free cutting steel bars are made from lead alloy steel which gives a better cutting speed and tool life on the automats manufacturing housing and gland nuts. MICO is of the view that it would be several years before free cutting lead alloy steel is made in India. We understand from D.T.D. that these alloy steels will come within the ambit of the public sector plants at Bhadravati and Durgapur. Attempts made by one producer to make use of imported low carbon steel and getting it bright drawn by an indigenous firm showed that the quality will have to be improved and the price of the indigenously processed bars is also somewhat higher. Since some saving of foreign exchange will accrue if these bars are imported in black condition and bright drawn in the country, even this stage has to be encouraged. Further as we consider that spark plugs and diesel fuel injection equipment are essential ancillaries of the automobile industry inclusion in the production programme of any alloy steel unit of bright drawn free cutting steel bars required by these industries should be given high priority.

10.4.1. With regard to insulator, which accounts for the largest element of cost particularly because it bears as a component a duty of 92½ per cent, MICO has set up a plant for its manufacture and it expects to commence production by the middle of 1963. The plant capacity of 2·5 million pieces, which is said to be a minimum economic size, is very much in excess of MICO's own requirements. To improve the utilisation factor, it has been scouting for alternative items of manufacture. But we consider that the first priority should be given by this unit to meet the demand for insulators from the other unit in the automobile spark plug industry as well. MICO has represented that the main raw material for spark plug insulator, *viz.*, calcined alumina of requisite purity is not available indigenously. We consider that steps should be taken to ensure that indigenous manufacturers of aluminium undertake the manufacture and supply of this raw material of required purity for the manufacture of spark plug insulators.

10.4.2. In this connection we would invite attention to paragraph 5·3 of our Report (1960) where it was stated that MICO was embarking on a scheme for the manufacture of insulators costing Rs. 25 lakhs of capital equipment and had given an unqualified assurance of holding the price level of spark plugs using the indigenous product and supplying insulators to the other producers as well. We now understand that Auto Accessories has also been granted a licence for production of insulators and will be using imported pulp. In view of large surplus capacity resulting from such an arrangement and rendering the capital investment infructuous, and as we consider that for stabilising production of insulators there should be no continued dependence on imported material, we suggest that the whole question may be further reviewed by the authorities.

10.5. With regard to different washers now imported as components we consider that as the basic raw materials, namely, copper or M.S. sheets are available, plug manufacturers should be assisted either to locate indigenous capacity with other automobile component manufacturers or to produce them in their own factories. Requirements of other items of raw material are small and also of special nature and materials like nickel are not indigenously available. Complete self-sufficiency in such cases is not attainable or necessary.

10.6. Since with the technical 'know-how' available the automobile spark plug industry has been able to stabilise its production, it can effectively contribute to the self-sufficiency of our economy in respect of its products only if the main raw materials and components indicated above are produced in the country as early as possible and sufficient attention is paid to quality.

10.7. Both the producing units in the industry have foreign collaboration and the collaborators are in a position to help regarding supply of imported raw material. MICO has stated that since the licensing period April-September, 1962, because of the restrictive licensing policy, it has been unable to obtain its ready raw material imports such as

bright drawn special steel items. A similar difficulty has been indicated by Auto Accessories as regards importation of certain machinery through its collaborators. At present it manufactures detachable types of plugs although its own collaborator and its competitor MICO produces non-detachable plugs. It has represented that it is unable to get the small allocation of exchange of Rs. 32,000 for the import of a hot crimping and cold rolling machine from its collaborators which is required to change over to the non-detachable type of plugs. Since the alternative given to the industry to import from the U.S.A. involves a very considerable increase in costs, we suggest that with reference to all the circumstances the facilities asked for by this protected industry may be favourably considered.

11. Quality

11.1. The consensus of opinion of consumers, including automobile manufacturers using spark plugs as original equipment, Government departments, transport undertakings, importers and dealers, is that the quality of indigenous spark plugs is satisfactory. Some automobile manufacturers who are receiving the plugs as original equipment at special prices also consider the price as fair. As regards the life of the indigenous plug, it is stated by a few that it is shorter than that of imported plugs like Champion or A.C. However, arguments based on the assumption that imported plugs would last for about 30,000 miles do not accord with general experience and represent a nostalgic adherence to imported brands. From the discussions under 'demand' in paragraph 9.2.3., it would appear that the life of the indigenous plug is really higher than that assumed for estimating the demand. The fact that sales of spark plugs in 1962 were less than in 1960 in spite of increase in the number of vehicles on the road and drastic cuts on imports of plugs is also a pointer that the quality and life of indigenous products has further imporved.

11.2. MICO subscribes to I.S.I. Certification Marks Scheme and Auto Accessories has stated that it follows the B.S.S. whose main features have been incorporated in the standards laid down by the I.S.I. and has not adopted the certification marks in view of the extra cost.

11.3. The number of complaints received are stated to be insignificant in relation to the large output. Complaints are promptly attended to by the producers and their distribution organisations. Complaints about plug failures are said to emanate from the use of plugs of wrong heat value. It has been urged that faults noticed in the plugs may be due not only to defective manufacture or choosing plugs of incorrect heat value but also due to physical damage from bad maintenance. Recommendation and comparison charts for the guidance of consumers are now attempted to be popularised by the manufacturers and one producer claims that its technical personnel at the factory and the sales house make periodical visits to major customers to render after-sales service.

11.4. MICO has established a good system of quality control and made detailed provision for the testing of raw materials and finished products. A system of floor inspections and supervisory counterchecks

over floor inspectors exists and parts are checked, where necessary, individually (otherwise on a fair random sampling) for dimensions as well as functional working. Staff who have been trained with their collaborators abroad organise the control. MICO has also a well developed testing laboratory and design office.

11.5. Auto Accessories India Ltd. says it has also facilities for testing raw materials and finished products for quality and correctness as laid down by its principals. This it does in its works besides sending samples of both raw materials and finished products to the principals as well as to the Government Test House, Alipore for testing and issuing certificates.

12. Import control policy, imports and exports.

12.1. *Import control policy.*—For the purpose of import control spark plugs fall under Serial Nos. 293, 295 and 297 of Part IV and are included in the list III of Appendix XXXVI of the Import Trade Control Schedule relating to licensing policy for motor vehicle parts. During the successive licensing periods from October 1960 to March, 1963, there has been steady restriction on imports. As to the earlier period, for the period October, 1960 to March, 1961, licences were issued to established importers for quotas upto 5 per cent (general) and 5 per cent (soft currency area). Such licences were not valid for import of spark plugs of 14 mm. and 18 mm. sizes, but import of one water proof cover per spark plug was allowed within the licensed value. For the periods April, 1961 onwards only a 5 per cent quota has been allowed to established importers subject to the same conditions as above. No imports of spark plugs for 14 mm. and 18 mm. sizes have been allowed.

12.2. *Imports.*—The total imports of spark plugs and the principal sources are indicated in the statement below:—

12.3. *Exports.*—There have been no exports by the indigenous industry so far and it has been stated that the industry is unlikely to be able to do so in the foreseeable future. The difficulties in the way, as explained by MICO, are firstly that the export market for automobile ancillary manufacturers has to be first created by the vehicle manufacturer by exporting his vehicles fitted with indigenous components, a condition yet to be fulfilled and secondly, high costs of production are brought about through the limited internal demand and the high cost of imported raw material and components on which heavy import duties are levied. The first contention does not seem to be quite tenable as spark plugs are manufactured in India up to the standards laid down by the foreign collaborators, who sell their makes in world markets. As regards the other difficulty, high costs are no doubt inevitable because of relatively small output from the Indian units. The high value of import content of raw material, (about 35 per cent), and the heavy duty on imported components and raw materials, such as insulators (92·5 per cent), alloy steel (35 to 50 per cent), brass rods (40 per cent), also raise the cost of indigenous plugs. Even with the full drawback of the fiscal levies, if export prices be taken at the level of original equipment prices or even at manufacturer's works costs, they may not be quite comparable with the world market prices of the overseas producers.

(Quantity in Numbers)
(Value in Rupees)

Year	14 mm.		18 mm.		Other sizes		Total		Principal sources of imports
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	
1960	635	2,087	3,504	12,126	143,503	86,659	147,642	1,00,872	U. K., U. S. A. and West Germany
1961	1,58,445	1,11,813	1,203	2,317	285,311	154,154	444,959	2,68,284	U. K. and U. S. A.
1962 (Jan.-Nov.) . .	722	3,374	6	21	60,502	124,545	61,230	1,27,940	U. K. and U. S. A.

Though consumer prices may be higher in main producing countries, their selling prices average to Re. 1·00 per plug in the export markets. Comparative advantages for Indian made plugs will also hinge on cost of insulators to be made indigenously in future. It is, therefore, necessary that proper incentives are afforded to exports. In the interest of the development of the industry, if large scale exports have to be made, the collaboration agreements of the indigenous producers with their foreign collaborators may also have to be suitably modified in the first instance to remove any inhibitory provisions. This matter should receive the attention of the authorities.

Existing rate of duty

13. Automobile spark plugs are at present assessed to duty under item No. 75(16) of the First Schedule to the Indian Tariff Act, 1934. The relevant extract is reproduced below:—

Item No.	Name of the article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of			Duration of protective rate of duty
				The U.K.	A British Colony	Burma	
*75(16)	The following articles and parts thereof adapted for use as parts and accessories of motor vehicles, but excluding such articles and parts thereof as are adapted for use exclusively as parts and accessories of agricultural tractors namely:—						
	Sparking Plugs of 14 mm. and 18 mm. sizes including the reristor types but excluding integrally screened types.	Protective.	92½ per cent *ad valorem*.	..	..	..	December 31st, 1963.

*Under the Government of India, Ministry of Finance (Revenue Division) Notification No. 196-Customs, dated 24th December, 1955, sparking plugs of the kind falling under this item, if of the United Kingdom manufacture, are exempt from the payment of so much of the customs duty leviable thereon as is in excess of 85 per cent *ad valorem*.

Provided that the said articles are not also adapted for use as parts and accessories of motor cars including taxi cabs.

(Note) Under the Finance Bill, 1963 a general surcharge of 10 per cent has been added.

14. In the 1955 inquiry when we recommended the rates of protective duty that are still current, we had adopted as the basis to determine the quantum of protection c.i.f. prices of A.C. spark plugs of U.K. origin which were taken at Rs. 1·01 c.i.f. for the 14 mm. size. At our last inquiry, as due to virtual absence of imports c.i.f. prices were not available, we had adopted the f.o.b. prices of Rs. 1·03 furnished by MICO with the addition of 5 nP. for marine freight and insurance to determine the notional c.i.f. price at an Indian port at Rs. 1·08 per plug. In view of the ban on imports of the two protected categories of 14 mm. and 18 mm. plugs, there have been no imports and the Collectors of Customs have been unable to furnish to us c.i.f. prices. From the information given by an importer on the basis of quotations, we understand that the f.o.b. price of the A.C. spark plug in the United States is 27 cents (Rs. 1·38) while the price of the same plug in U.K. on the basis of f.o.b. price which allows a substantial discount for large orders ranges between £0·096 and £0·083 *i.e.*, Rs. 1·28 and Rs. 1·11 respectively. Adding 7 nP. for freight and insurance to the lower f.o.b. price, the c.i.f. price can be notionally worked out at Rs. 1·18. From the information conveyed by the Indian High Commission, London, it would appear that the price of Champion spark plug of 14 mm. and 18 mm. in the U.K. are Sh. 2·2 (Rs. 1·44) and Sh. 2·2½ (Rs. 1·47) respectively less 2 per cent cash discount, while the ex-factory prices of A.C. and K.L.G. sparking plugs are said to be Sh. 1·10 (Rs. 1·23) and Sh. 1·11 (Rs. 1·28) each respectively f.o.b. Auto Accessories has stated that f.o.b. price of K.L.G. spark plug in the U.K. is Sh. 1·10½ and the c.i.f. equivalent would be Rs. 1·35. Prices in Germany are stated to have gone up by about 5 per cent so that the figures of c.i.f. of Bosch plugs adopted on the last occasion have to be raised. We have in the present inquiry therefore taken the lowest notional c.i.f. price of Rs. 1·18 per plug.

C. i. f. prices

15.1. Our Cost Accounts Officer has examined the cost of production of MICO. It was a unit successively selected for cost investigation from the time of our first inquiry. The period selected for costing was the financial year ending 31st March, 1962 but the costs for the next six months were also scrutinised for the purpose of studying the trend of costs so as to make a reasonable assessment of costs for projecting it for the future. MICO continues to manufacture besides automobile spark plugs, diesel fuel injection equipment in the same factory premises. To a large extent the plant and machinery particularly automats are employed in the manufacture of different products so as to obtain the maximum utilisation of the plant The financial accounts are maintained in adequate detail as required by law and various statistical and operational data are also available. The method of costing adopted was similar to that followed in the previous inquiries. Costs of production have been worked for three popular types of plugs, namely, H.W. 175 T1 14 mm. short reach, H.W. 145 T2 14 mm. long reach and H.M. 145 T1 18 mm. short reach.

15. Cost of production and fair ex-works price of indigenous spark plugs.

15.2. In estimating fair ex-works prices, production of spark plugs has been taken at 1·123 million pieces per annum. Manufacture of different varieties of spark plugs has been estimated to be in the same proportion as in the actual periods. As the scheme for manufacture of insulators has to still make a beginning, neither the capital cost for this purpose nor the cost of production which even the company is at present unable to envisage, has been taken into account. It has been assumed that at least for the initial period of two or three years needed to overcome the teething difficulties and till alumina of the requisite quality is indigenously available, the prices of indigenously produced insulators may not be found lower than that of the imported ones. Cost of materials and their consumption and wastage have been taken at the same basis as for the actual period but an allowance has been made for fiscal levies since April, 1962. Reasonable estimates of the increases on account of wages and salaries, electricity, consumable stores, tools and spares have been taken into account as also necessary addition to overheads on account of labour amenities, research and training expenses, publicity and propaganda and emergency risk insurance premia. Depreciation as usual has been taken at income-tax rates and packing costs adjusted to the extent necessary for the prevailing prices of material. Royalty to Bosch has been included at 3·66 per cent of net set value which is the effective rate. An allowance for contingencies has been added at 5 per cent of works costs. From a study of the past three years working of the company it has been found that six months' cost of production exclusive of depreciation would be adequate in estimating the working capital. Return on capital employed has, however, been allowed at the rate of 12 per cent which we have given in the case of most industries recently. Our estimates of fair ex-works prices per 100 pieces are given below:—

	Rs. per 100 Pieces		
	H/W 175 T1	H/W 145 T2	H/M 145 T1
1. Material costs	102·34	108·02	134·64
2. Manufacturing costs including royalty	76·08	78·98	82·67
3. Cost of production	178·42	187·00	217·31
4. *Add* for contingencies	8·44	8·87	10·38
5. Return on capital employed	18·92	19·41	21·20
6. Fair ex-works price	205·78	215·28	248·89
7. Fair ex-works price per piece	2·06	2·15	2·49

16. Since the bulk of the domestic production of spark plugs is 14 mm. short reach type we give below the comparison of the ex-works price of indigenous type with the computed ex-duty landed cost of an imported plug:—

Comparison of landed cost with fair ex-works price

	Rs.	
(a) C.i.f. price	1·18	
(b) Customs duty	1·10	
(c) Clearing charges	0·01	
	2·29	
(d) Landed cost without duty	1·19	
(e) Fair ex-works cost including duty on imported components	2·06	
(f) Disadvantage of (e) against (d)	0·87	
(g) (f) as a percentage of c.i.f. price in (a)	73·73	per cent

The disadvantage as computed above and the existing import duty of 85 per cent *ad valorem* (preferential) plus surcharge of 10 per cent diverge by about 20 per cent. We consider that the duty could bear revision and as a measure of protection a rate of duty of 73·73 per cent or roundly 70 per cent *ad valorem* (preferential) and 77·5 per cent *ad valorem* (standard) would be adequate now.

17. MICO has contended that for the economic manufacture of spark plugs advanced technique of mass production methods have to be employed. Its annual production would hardly bear comparison with that of the daily output of the biggest overseas manufacturers. Because of low production as a result of the comparatively low demand in India and the necessity to import a considerable portion of the raw materials and components on which a high duty is being paid, it is argued that without substantial protection the indigenous industry cannot survive in the face of free competition with imports. At the same time it has argued that for practical purposes, as the stringent import restriction and the foreign exchange difficulties are bound to continue for a long time, no harm will come to the industry if it is de-protected. Auto Accessories has, however, urged that protection should continue. Almost all the interests concerned have suggested that the continuance of protection to the industry is necessary on the ground that the indigenous industry cannot hope to achieve high levels of production in the foreeseable future and well not be able to withstand competition from industrially advanced countries. There is, no doubt, that the industry which has enjoyed protection for over eight years now has benefited therefrom. The quality of its product has been maintained and its production technique well established with foreign collaboration. But the main problem facing the industry is still the dependence on imports of raw materials—special steel alloys and components like insulators. The further expansion of the industry would be necessary as its present capacity is low in relation to demand

Measure of protection

envisaged at the end of the plan period. This would depend upon the pattern of development of vehicular type of engines. The development of the automobile industry which has to take a defence orientation in the present emergency is also likely to influence the demand for plugs, if the emphasis in future is on the production of commercial vehicles using diesel engines and foreign exchange difficulties affect the production of cars. Both the main automobile industry as well as the ancillary industries are now passing through a difficult phase. Their natural trend of development and expansion has been arrested to some extent by foreign exchange difficulties. In regard to the spark plug industry, for its proper development and for attaining self-sufficiency to the extent desired, the problem of establishing to the maximum extent indigenous sources of raw materials and components has to be tackled. We have earlier made some suggestions regarding the extent to which the automobile spark plug industry could be assisted in this regard. In the present state of the industry, although it has profited substantially and stabilised its position on account of protection, we consider the time is not yet ripe for de-protecting it. The cost disadvantage narrowed by the duty we have recommended is still large. Development of the industry is still to progress and cannot be sustained merely on the basis of import restrictions. While the industry has over a period claimed that it has not made any increase in prices except with reference to cost increases and fiscal levies, it also seems clear that with the growth in production the benefit of resulting economies have not been passed on to the consumer. Fulfilment of the industry's coming of age under protection can be tested only with reference to the extent to which prices of the indigenous product can be reduced. Though de-protection at this stage may not do any positive harm to the industry, it would, in the absence of an appraisal of costs, deny the consumer the benefit he could expect for a burden that he has borne for years as a result of protection. We, therefore, recommend that protection to this industry may be extended for a further period of two years till 31st December, 1965. The rate of duty necessary for protection may, however, be 77·5 per cent *ad valorem* (standard) and 70 per cent *ad valorem* (preferential) as indicated in paragraph 16.

18. Selling system and selling prices.

18.1. MICO makes direct sales of spark plugs as original equipment to automobile manufacturers. It also sells directly to Premier Auto Electric Co. Ltd. for whom it manufactures plugs under the brand name "Prakash". For spare parts sales, it has distributors at principal regional centres, *i.e.*, Delhi, Bombay, Calcutta, Secunderabad and Madras. The bigger regional offices have also branches in other cities. The distributors sell plugs to stockists and dealers who supply the customers on retail basis. A limited sale is also made direct to consumers at regional offices. Auto Accessories sells its plugs through Armstrong Smith Ltd., its principal distributor, who in turn appoints dealers all over the country.

18.2. Both producers are selling more or less at the same price. The sales as original equipment are made at a specially low price of Rs. 1·50 per plug. Sales to Government on rate contract are also made

at a common rate. MICO sells to Premier Auto Electric Co. at a special rate, as does Auto Accessories to Armstrong Smith, its principal distributor. The general level of prices charged to distributors is Rs. 2·65 per plug, to stockists Rs. 2·85, to dealers Rs 3·10 and to consumers Rs. 3·50 (list price). The prices to the distribution channel are lower on the basis of discounts over the list price. As far as the original equipment price is concerned, manufacturers are generally satisfied with it though some have averred that they could get imported plugs at a lower rate. The consumer price was raised from Rs. 3·25 at the time of our last inquiry to Rs. 3·50 per plug, despite a substantial rise in output. The consumer prices in India appear to be higher than the domestic prices of similar products in overseas manufacturing countries even allowing for the fact that ours is a new and small size industry. We understand that in the case of fast moving automobile spares a mark-up of 70 per cent over landed cost is regarded as reasonable. The comparison may no doubt be useful as a measure of assessing efficiency and progress of indigenous production. But when computed on top of a heavy protective duty the mark-up is likely to become unjustified. Our cost examination on the basis of which we have recommended a lower rate of protective duty would indicate that there is scope for lowering the consumer list prices. In respect of the main output of diesel fuel equipment MICO in pursuance of our recommendation, has made several price reductions. We have referred earlier to the attractive dividend record of MICO. If, as explained by it, the high dividend is inevitable due to Section 23A, now 109 of the Income Tax Act in the case of a company which works efficiently, it could also be urged that the profit margin due to economies and efficiency should be shared with the consumer by lowering prices which would inevitably reduce the gross profit margin. We are, therefore, of the view that the retail prices of automobile spark plugs could be reduced.

Summary of conclusions and recommendations.

19. Our conclusions and recommendations are summarised as under:—

(i) The annual capacity of the industry may be realistically adopted as 1·7 million pieces.

(Paragraph 7.)

(ii) The total production of spark plugs during 1960, 1961 and 1962 was 1·19, 1·45 and 1·08 million pieces respectively.

(Paragraph 8.)

(iii) The demand for spark plugs may be assessed at about 1·6 million pieces for 1963, 1·8 million pieces for 1964 and 2 million pieces for 1965.

(Paragraph 9.2.4.)

(iv) The demand for spark plugs, which may also increase in future, exceeds the present installed capacity. As this capacity can be raised without much additional cost by the existing units and the industry

is one where economies can accrue from mass production, it may be desirable to accord priority to the present producers in the context of any future expansion.

(Paragraph 9.2.5.)

(v) Since the spark plug is an essential component in the automobile industry, we consider that in the production programme of any alloy steel unit, bright drawn free cutting steel bars required by the industry should be given high priority.

(Paragraph 10.3.)

(vi) Steps should be taken to ensure that indigenous manufacturers of aluminium should be pressed to provide calcined alumina of requisite purity for the manufacture of spark plug insulators.

(Paragraph 10.4.1.)

(vii) The whole question of permitting both the producers to manufacture insulators may be further reviewed by the authorities in the light of the observations made in paragraph 10.4.2.

(Paragraph 10.4.2.)

(viii) Spark plug manufacturers should be assisted either to locate indigenous capacity for copper or M.S. washers with other automobile component manufacturers or to produce them in their own factories.

(Paragraph 10.5.)

(ix) Since the alternative given to the industry to import its requirements of raw materials and machinery from U.S.A. involves a very considerable increase in costs, the facilities asked for by this protected industry may be favourably considered.

(Paragraph 10.7.)

(x) The quality of indigenous spark plugs is satisfactory.

(Paragraph 11.1.)

(xi) In the interest of the development of the industry, the matter of affording sufficient incentives for exports and the question of suitably modifying agreements with foreign collaborators should receive the attention of authorities.

(Paragraph 12.3.

(xii) Protection to the automobile spark plug industry should be extended for a further period of two years till 31st December, 1965. The rate of duty necessary for protection should, however, be 77·5 per cent *ad valorem* (standard) and 70 per cent *ad valorem* (preferential).

(Paragraph 17.)

(xiii) Retail prices of automobile spark plugs should be reduced.

(Paragraph 18.2.)

20. We wish to acknowledge the co-operation received by us from the manufacturers, importers and consumers of spark plugs and the Government departments concerned in carrying out this inquiry.

Acknowledgements

K. P. P. AIYANGAR,
Chairman.

T. N. SEN GUPTA,
Member.

R. BALAKRISHNA,
Member.

PRAMOD SINGH,
Secretary.

BOMBAY;
Dated the 15*th April,* 1963.

APPENDIX I

(*Vide* Paragraph 3.1)

List of Firms, Bodies and Government Departments to whom the Commission's questionnaires and letters were issued and from whom replies were received

*Indicates those who replied in detail.

†Indicates those who had no information or views to give in reply.

A. PRODUCERS :

*1. Auto Accessories (India) Ltd., Near Halav Bridge, Old Kurla, Bombay-37.

*2. Motor Industries Co. Ltd., Post Box No. 93, Adugodi, Bangalore-2.

B. IMPORTERS :

1. A. R. Mukharjee & Co., Post Box No. 2273, P-74, Bentinck Street, Near Esplanade, Calcutta-1.

†2. The Associated Auto Part Private Ltd., 445, Lamington Road, Bombay-4.

†3. Cycle & Automobile Components (Private) Ltd., 4, Mission Row, Calcutta-1.

4. Dodge & Seymour (India) Private Ltd., Laxmi Building, Ballard Road, Ballard Estate, Bombay-1.

5. George Oakes Private Ltd., P.O. Box No. 499, Bombay-1.

*6. India Motor Parts and Accessories Private Ltd., 1/155, Mount Road, Madras-2.

*7. Madras Auto Service Private Ltd., 37, Mount Road, Madras-6.

*8. Premier Auto Electric Private Ltd., 69, Tardeo Road, Bombay.

†9. Raja Ram & Sons, Nehru Garden Road, Jullundur City.

*10. Rane (Madras) Ltd., 5, Pattulos Road, Mount Road, Madras-2.

11. Vora Bros., New Queen's Road, Near Opera House, Bombay-4.

C. CONSUMERS :

*1. Automobile Products of India Ltd., Bhandup, Bombay-40.

*2. Hindustan Motors Ltd., 8, India Exchange Place, Calcutta.

*3. Mahindra & Mahindra Ltd., Gateway Building, Apollo Bunder, Bombay-1.

*4. The Premier Automobiles Ltd., Agra Road, Kurla, Bombay-37.

*5. Standard Motor Products of India Ltd., 29, Mount Road, Madras-2.

*6. The Enfield (India) Ltd., Royal Enfield Building, Thiruvottiyur, Madras-19.

*7. Ideal Jawa (India) Ltd., Industrial Estate, Mysore-2.

8. Bajaj Auto Ltd., 134, Dr. Annie Besant Road, Worli.

9. Escorts Ltd., Paratap Building, Cannaught Circus, New Delhi-1.

*10. Krishi Engines (Pvt.) Ltd., A-7 Unit, Industrial Estate, Sanatnagar, Hyderabad.

11. Burmah Sheel Oil Storage & Distribution Co., Burmah Shell House, Currimbhoy Road, Ballard Estate, Bombay-1.

12. Ahmedabad Municipal Transport Service, Outside Jamalpur Gate, P.O. Box No. 142, Ahmedabad-1.
13. Bombay Electric Supply and Transport Undertaking, Best House, P. B. No. 192, Bombay-1.
14. The Anamalai Bus Transport (Pvt.) Ltd., Goods-Shed Road, Pollachi.
15. General Manager, Amritsar Omnibus Service, Amritsar.
*16. Transport Commissioner, Government Transport, Transport House, Mount Road, Madras-2.
*17. Director General, Directorate of Transportation, Government of West Bengal, 5, Nilgunge Road, Belgharia, 24-Parganas, West Bengal.
18. The Director General of Ordnance Factories, 6, Esplanade East, Calcutta-1.
*19. Army Base Workshop, 515, Central EME Workshop, Bangalore-8.

D. ASSOCIATIONS :

1. The Secretary, All India Automobile & Ancillary Industries Association Brabourne Stadium, 87, Veer Nariman Road, Bombay-1.
*2. The Secretary, Association of Indian Automobile Manufacturers, Army & Navy Building, Mahatma Gandhi Road, Bombay-1.
*3. The Secretary, Bombay Motor Merchants' Association, Sukh Sagar, Sandhurst Bridge, Bombay-7.
*4. The Secretary, Calcutta Motor Dealers' Association, 16, Rajendranath Mukherji Road, Calcutta-1.
5. The Secretary, Delhi Motor Traders' Association, P. B. No. 1098, Kashmere Gate, Delhi-76.

E. PROSPECTIVE SUPPLIERS OF RAW MATERIALS :

1. The Aluminium Corporation of India Ltd., 7, Council House Street, Calcutta.
2. Chase Bright Steel Ltd., Vaswani Mansions, Dinshaw Watcha Road, Bombay-1.

F. GOVERNMENT DEPARTMENTS

*1. The Senior Industrial Adviser, Department of Technical Development, (Automobile Directorate), Ministry of Economic and Defence Co-ordination, Udyog Bhavan, New Delhi.
*2. The Consulting Engineer to the Government of India, Ministry of Transport and Communications, (Roads Wing), Statistics Division, Jamnagar House, New Delhi.
*3. The Director of Co-ordination & Statistics Ministry of Economic & Defence Co-ordination, Directorate General of Supplies & Disposals, (Department of Supply), National Insurance Building, Parliament Street, New Delhi.
*4. The Director of Vehicles, Army Headquarters, (Vehicles Transport Wing), Ministry of Defence, New Delhi.
†5. The Collector of Customs, New Custom House, Bombay-1.
†6. The Collector of Customs, Calcutta.
†7. The Collector of Customs, Madras.
†8. The Collector of Customs, Cochin.
*9. Counsellor (Commercial) to the High Commission of India, India House, Aldwych, London, W.C.-2, United Kingdom.
10. First Secretary (Commercial) to the Embassy of India, 2107, Massachusetts Avenue, Washington-8, D.C.

11. First Secretary (Commercial) to the Embassy of India, 262, Koblenzer Strasse, Bonn, West Germany.
12. Director of Industries, Department of Industries and Commerce, Government of Mysore, Bangalore.
13. Director of Industries & Statistics, Government of Maharashtra, Bombay-1.

G. CHIEF SECRETARIES OF STATES :

1. The Chief Secretary to the Government of Andhra Pradesh, HYDERABAD.
2. The Chief Secretary to the Government of Assam, SHILLONG.
3. The Chief Secretary to the Government of Bihar, PATNA.
*4. The Chief Secretary to the Government of West Bengal, CALCUTTA.
†5. The Chief Secretary to the Government of Gujarat, AHMEDABAD.
†6. The Chief Secretary to the Government of Jammu & Kashmir, SRINAGAR.
†7. The Chief Secretary to the Government of Kerala, TRIVANDRUM.
8. The Chief Secretary to the Government of Madhya Pradesh, BHOPAL.
9. The Chief Secretary to the Government of Madras, MADRAS.
*10. The Chief Secretary to the Government of Maharashtra, BOMBAY.
*11. The Chief Secretary to the Government of Mysore, BANGALORE.
12. The Chief Secretary to the Government of Orissa, BUBANESHWAR.
*13. The Chief Secretary to the Government of Punjab, CHANDIGARH.
†14. The Chief Secretary to the Government of Rajasthan,, JAIPUR.
15. The Chief Secretary to the Government of Uttar Pradesh, LUCKNOW.
†16. The Chief Commissioner, Delhi Administration, DELHI.
†17. The Chief Commissioner, Himachal Pradesh, SIMLA.

APPENDIX II

(*Vide* Paragraph 3.1)

Particulars of the Factories visited by the Commission and its Officers

Name of the factory	By whom visited	Date of visit
1. Motor Industries Co. Ltd., Bangalore.	(i) Shri K. R. P. Aiyangar, Chairman.	14th February, 1963.
	(ii) Dr. R. Balakrishna, Member.	23rd February, 1963.
	(iii) Shri Hari Bhushan, Technical Director (Engineering & Metallurgy).	29th September, 1963.
	(iv) Shri P. M. Menon, Cost Accounts Officer.	18th to 30th January, 1963.
2. Auto Accessories (India) Ltd., Bombay.	(i) Shri K. R. P. Aiyangar, Chairman. (ii) Shri J. N. Sen Gupta, Member. (iii) Dr. R. Balakrishna, Member. (iv) Shri Pramod Singh, Secretary. (v) Shri Hari Bhushan, Technical Director (Engineering & Metallurgy).	7th March, 1963.

APPENDIX III

(*Vide* Paragraph 3.3)

List of Persons who attended the Commissions Public Inquiry on 28th March, 1963.

Name of representative	Name of firm or body represented
A. PRODUCERS:	
1. Shri E. Krimmel 2. Shri D. N. Vatcha	Motor Industries Co. Ltd., Post Box No. 93, Adugodi, Bangalore-2.
3. Shri J. W. Oates	Auto Accessories (India) Ltd., Forbes Building, Home Street, Fort, Bombay-1.
B. IMPORTERS:	
4. Shri Poncha 5. Shri J. Wadia	Premier Auto Electric Ltd., 69, Tardeo Road, Bombay-34.
6. Shri D. M. Khandke	Dodge & Seymour (India) Pvt. Ltd., Ballard Estate, Post Box No. 144, Bombay-1.
C. CONSUMERS:	
7. Shri H. N. Gujar	The Premier Automobiles Ltd., Agra Road, Kurla, Bombay-70.
8. Shri P. C. Munot	Bajaj Auto Ltd., 134, Dr. Annie Besant Road, Worli, Bombay 18.
9. Shri D. R. Pavri	B.E.S.T. Undertaking, Electric House, Bombay.
D. ASSOCIATIONS:	
10. Shri N. Balakrishna	Association of Indian Automobile Manufacturers, Army & Navy Building, 3rd Floor, Mahatma Gandhi Road, Fort, Bombay-1.
E. SUPPLIERS OF RAW MATERIALS:	
11. Shri A. K. Jajodia	Chase Bright Steel Ltd., Vaswani Mansions, Dinshaw Watcha Road, Bombay-1.

Name of representative	
F. GOVERNMENTS DEPARTMENTS	
12. Shri N. T. Gopala Iyengar, Development Officer (Automobiles).	Department of Technical Development, Ministry of Economic & Defence Co-ordination, New Delhi.
13. Shri S. V. Sundaram, Deputy Director of Supplies, Office of the Director of Supplies and Disposals, Bombay.	Directorate General of Supplies and Disposals, Ministry of Economic and Defence Co-ordination, New Delhi.
14. Shri D. S. Godbole, Deputy Director of Industries (Engineering).	Directorate of Industries, Government of Maharashtra, Bombay.
15. Shri P. Ramabrahman, Appraiser . .	Office of the Collector of Customs, Bombay.

GIPN—S3—5 T. C. Bom./63—11-12-63—450.