



सत्यमेव जयते

GOVERNMENT OF INDIA
TARIFF COMMISSION

REPORT
ON THE
Continuance of Protection
TO THE
Automobile Sparking Plug Industry

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BOMBAY 1965

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Report on the Continuance of Protection to the
Automobile Sparking Plug Industry-1965.



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DR. R. BALAKRISHNA	<i>Member</i>
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GOVERNMENT OF INDIA
MINISTRY OF COMMERCE

New Delhi, the 18th Nov., 1965.

RESOLUTION

Tariffs

No. 8(1)-Tar/65.—The Tariff Commission has submitted its Report on the continuance of protection to the Automobile Sparking Plug Industry on the basis of an inquiry undertaken by it under sections 11(e) and 13 of the Tariff Commission Act, 1951 (50 of 1951). Its recommendations are as follows :—

- (1) Protection to the sparking plug industry should be continued for a further period of three years i.e. till 31st December, 1968 but the protective rates of duty should be reduced to 67·5 per cent *ad valorem* (Standard) and 60 per cent *ad valorem* (Preferential). These rates of duty are exclusive of the surcharge and the regulatory duty.
- (2) An increase of capacity for sparking plugs may have to be contemplated and programmed for towards the middle or end of 1967 when the existing capacity is likely to be fully extended and some third shift working may be needed.
- (3) It is preferable to allow the existing units to increase their capacities rather than establish new units.
- (4) Auto Accessories' programme to change the design of its plug should be facilitated with the release of the foreign exchange needed for additional equipment as it will reduce costs.
- (5) The capacity licensed for free cutting steel is inadequate and that even by the end of the Fourth Five Year Plan there will be a wide gap between supply and demand which will have to be covered by imports.
- (6) It is desirable that some capacity for the manufacture of nickel alloys should be established in the country.
- (7) Timely issue of import licences for the required materials can result in cost economies. They should, therefore, be given to the manufacturers except where they are a part of the quota of a processor of the materials.
- (8) There should be no difficulty in substituting indigenous M.S. revetting quality steel wire required for the central electrodes for the imported material.
- (9) There is a need for the sparking plug industry to explore possibilities of exports with determination and with long-term objectives.

(iv)

- (10) Cost examination and the higher levels of output expected in the coming years suggest that the sparking plug industry should be able to further reduce prices in course of time.
- (11) With increases in the production of insulators to fuller, if not maximum, capacity of its plant by MICO (Motor Industries Company), there will be further economies in the cost of manufacture of Insulators.
- (12) The two brands of sparking plugs (*viz.* sparking plugs of 14 mm and 18 mm sizes) made in the country are fully upto the standards of the foreign trade names with which they are associated and for that reason they should be acceptable to all users.

2. Government have given careful consideration to recommendation (1) and having regard to the progress the industry has made so far and the fact that in the present circumstances there is no likelihood of any unhealthy competition from imports and in view of the rates of duty on protected categories of automobile sparking plugs having gone up under the Finance (No. 2) Act, 1965. beyond the level of protective rates recommended by the Tariff Commission, Government consider that tariff protection to the Automobile Sparking Plug Industry need not be continued beyond 31st December, 1965. Government, however, propose to continue the rates of duty as at present. Necessary legislation to implement Government's decision will be undertaken in due course.

3. Government have taken note of recommendations (2) to (7) and suitable action will be taken to implement them to the extent possible.

4. Government have also taken note of recommendations (8) to (10) and the attention of the Industry is also invited to these.

5. The attention of Motors Industries Company is invited to recommendation (11).

6. The attention of the Sparking Plug Industry and the users of sparking plugs is invited to recommendation (12).

ORDER

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

P. K. J. MENON,
Joint Secretary to the Government of India.

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

1.1. Protection to the automobile sparking plug industry was a sequel to the grant of protection to the main automobile industry. In paragraph 12(e) of its

1. History of protection

Report on the Automobile Industry (1953), the Tariff Commission had brought to the notice of the Government of India, that various automobile ancillary industries had claimed protection against imports, and that the case of each of these had to be examined separately before deciding upon its eligibility for protection and the quantum and nature of protection. On a representation by Motor Industries Co. Ltd., Bangalore (MICO), the claim of the sparking plug industry to protection was examined by the Tariff Commission in 1954. Accepting the Commission's recommendation Government granted protection to the industry initially for one year ended 31st December 1955 by increasing the rate of duty from 25 per cent *ad valorem* on sparking plugs of British manufacture to 85 per cent *ad valorem* and the standard rate to $92\frac{1}{2}$ per cent *ad valorem*, in order to maintain a preference of $7\frac{1}{2}$ per cent *ad valorem* for British sparking plugs. Subsequent inquiries held in 1955 and 1960 led to further continuance of protection at the above rates of duty upto 31st December 1960 and 31st December 1963 respectively. The industry also enjoyed the concession of duty-free imports of insulators (not fitted with central electrodes) upto 29th May 1959. The last inquiry into the industry was held by the Commission in 1963 when it recommended continuance of protection for a further period of two years ending 31st December 1965 but at reduced rates of duty of 77.5 per cent *ad valorem*, standard and 70 per cent *ad valorem*, preferential. These recommendations were accepted by Government and were given effect to by the Indian Tariff (Amendment) Act, 1963. Besides the protective duty, a surcharge at 10 per cent of the duty and a regulatory duty at 10 per cent *ad valorem* (effective from February 1965) are also leviable on imports of sparking plugs.

1.2. The scheme of protection covers sparking plugs of 14 mm. and 18 mm. sizes and parts thereof, including resistor types but excluding integrally screened types and those used exclusively as parts of agricultural tractors.

2. As protection granted to the industry is due to expire on 31st December 1965, the Commission has undertaken the present inquiry under Section 11(e) read with Section 13 of the Tariff Commission

Present inquiry

Act, 1951.

3.1. The inquiry was initiated with the issue of a public notice inviting the attention of all concerned to the inquiry and by sending a questionnaire to the producers calling for detailed operational and

3. Method of inquiry

other data. The Producers' Association was also requested to submit a memorandum on the industry. Consumers of plugs and their Associations were issued a questionnaire to elicit their views regarding quality, price and availability of plugs. As raw materials supply is one of the most important aspects of development, present and prospective manufacturers of materials required by the sparking plug industry were approached to ascertain the position regarding availability of such materials. The Director General of Technical Development (D.G.T.D.) was requested to send a report on the development of the industry. Information on C.I.F./F.O.B. prices was sought from the Customs authorities at the principal ports and from the Government of India Trade Representatives in U.K., U.S.A. and West Germany. The complete list of parties who were addressed in connection with the inquiry is given in Appendix I.

3.2. The factory of MICO was visited by the Commission and its officers as shown in Appendix II. For the purpose of cost examination Auto Accessories Ltd., Bombay (Auto Accessories) was selected. This is the first time that this unit, which is the smaller of the two existing manufacturing units, has been costed. A copy of the Cost Accounts Officer's report is submitted to Government as a confidential enclosure to this Report.

3.3. The Commission's public inquiry into the industry was held on 25th February 1965. The list of parties who attended the inquiry is given in Appendix III.

4. The present scheme of protection covers sparking plugs of 14 mm. and 18 mm. sizes and parts thereof, including resistor types, but excluding integrally screened types. It also excludes sparking plugs adapted for use exclusively as parts and accessories of agricultural tractors. Other than 14 mm. and 18 mm. plugs, MICO produces two sizes, viz., 10 mm. and 7/8" which are assembled for imported components. Production of the latter two sizes was very small, i.e. 629 nos. out of a total of 1,414,431 nos. produced by the company during 1963 and 440 nos. out of 1,502,779 nos. in 1964. In its last Report (1963) the Commission had observed that the production of sparking plugs of sizes other than the protected sizes mentioned above was very small and that there was no request for either widening or limiting the scope of protection. During the present inquiry also no request has been received from any quarter for a change in the scope of protection.

5.1. The Commission's ancillary recommendations made in its last Report (1963) and the extent to which they have been implemented are stated below:

5.2. *Recommendation 1:*

"Retail prices of automobile spark plugs should be reduced".

Both the manufacturers state that they have reduced their prices since the last inquiry. This matter is discussed further in para 17.2.

5.3. *Recommendation 2:*

“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”.

The Department of Heavy Engineering, in its letter dated 4th June 1964 has informed us that the above recommendation has been noted for future guidance.

5.4. *Recommendation 3:*

“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”.

The Department of Iron and Steel in its letter dated 13th January 1965 informed us that the capacity licensed by Government for the manufacture of free cutting steel is as follows:

Unit	Annual capacity (Tonnes)	Likely date of commencing production
1. Guest, Keen, Williams Ltd., Calcutta	2,000	31-7-1965
2. Chase Bright Steel Ltd., Bombay	14,400	1966-67
3. Globe Motors Ltd., New Delhi	2,400	1968
4. Mysore Iron & Steel Ltd., Bhadravati	30,000 (including spring steel)	1968-69
5. All Steel Industries Corporation, Coimbatore	17,600	1969-70

5.5. *Recommendation 4:*

“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”.

Auto Accessories which was granted a licence to import capital goods valued at Rs. 1,60,000 for manufacture of insulators has stated that since MICO has already gone into production of this item with sufficient spare capacity and has agreed to supply its current and future demand, it has surrendered the licence granted to it.

5.6. *Recommendation 5 :*

“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.”

The Department of Heavy Engineering has informed us that keeping in view the present foreign exchange difficulties, the Capital Goods Committee would do the needful to the extent possible.

5.7. *Recommendation 6 :*

“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.”

The Department of Heavy Engineering has stated that the collaboration agreements are not prohibitive as such. The firms have been advised to seek the assistance of their foreign collaborators and try to export the products to the extent possible. MICO has stated that the technical collaboration agreement between it and Robert Bosch GmbH Stuttgart, West Germany, does not by itself cause any serious impediment to export. In fact Bosch has not only been encouraging MICO to export but has also helped it substantially in procuring orders. Recently MICO has exported 50,000 plugs to Saigon but this sale was largely due to certain limitations of the purchaser, and does not indicate any competitive capacity on the part of the manufacturer. We understand that Auto Accessories has secured the right to export sparking plugs provided the name of “K.L.G.” is not used and hence it proposes to export plugs under the name of “TAFF”.

5.8. *Recommendation 7 :*

“Spark plugs 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.”

The Director General of Technical Development has stated that efforts are being made by the manufacturers to get them made by some of the Gasket manufacturers. The Department of Heavy Engineering has also informed us that, if approached, it would assist to the extent possible.

5.9. *Recommendation 8 :*

“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.”

The Department of Heavy Engineering which took up the matter with the indigenous manufacturers of aluminium, has advised us that since indigenous manufacturers have expressed their inability to meet the specific requirements of the sparking plug industry, the latter's requirements may have to be imported for some time to come. MICO has informed us that Indian Aluminium Co. Ltd., Calcutta, regretted its inability to install any special equipment to process calcined alumina as the requirement was too small. It has stated further that Micro Abrasive (India) Ltd., New Delhi, which manufactures fine emery powder for the optical industry intends to install equipment with which it would be possible to manufacture calcined alumina and that it is negotiating with Government for a licence for the purpose. At the public inquiry it was brought out that some firms in Calcutta might also be interested in the supply of this product.

6.1. Capacity and its utilization.

6.1.1. MICO and Auto Accessories continue to be the only indigenous manufacturers of sparking plugs. At the public inquiry we were told that an application from Bhadsavle Industries, a company which has not been registered yet, for an industrial licence to undertake the manufacture of sparking plugs is pending with Government. The following table shows the capacity of the two manufacturers as furnished by them and the D.G.T.D. at the time of the 1963 inquiry and now, as well as our own assessment of capacity :—

Reported by	(In nos.)			
	MICO		AUTO ACCESSORIES	
	1962	1964	1962	1964
1. D.G.T.D. (Basis of maximum utilization).	996,000	996,000	600,000	600,000
2. Manufacturers	600,000	864,000 (Single shift)	420,000	420,000 (double shift)
3. Tariff Commission's assessment*	600,000	864,000	500,000	420,000

*1962 based on actual performance ; 1964 on single shift basis.

6.1.2. According to the D.G.T.D. there has been no increase in the capacity of the two units. MICO has, however, reported a substantially higher capacity this time of 864,000 nos. on single shift which is 44 per cent higher than the 1962 figure. The increase which took place during 1964 is the result of fuller utilisation of plant and equipment. The company has not incurred any fresh capital outlay for expansion during 1963 and 1964.

6.1.3. Auto Accessories while reporting the same figure as in 1962 has stated that for bodies, gland nuts, terminal screws and terminal/nuts

—which are the only machined components—the capacity can be raised from the present 420,000 on two shift basis to 420,000 on single shift by employing additional machinery which it possesses but utilises for other work. The assembly capacity can be increased from 420,000 to 600,000 on single shift basis by employing additional workers.

The department-wise capacity figures of the two units are as follows :—

(In nos.)

	MICO	AUTO ACCESSORIES	
		Present	Possible
1. Insulators	3,600,000	Nil	Nil
2. Body	1,728,000	420,000	840,000
3. Other parts	1,800,000	420,000	840,000
4. Assembly :	1,728,000	420,000	600,000 (single shift)

The capacity in the case of MICO is on the basis of two shifts of 8 hours each and 300 working days, for departments 2 to 4. As regards insulator manufacture, which is a continuous process, account has to be taken of a six month shut down for overhaul of the furnaces once in every six years. In the case of Auto Accessories the capacity figures are, with the exception of the assembly department, on two shift basis. The company has claimed that when the demand increases it will be able to expand its capacity to the extent indicated in the last column of the above table, by diverting some existing machines from other work to manufacture of sparking plug components and by employing additional workers for assembly alone. A third shift is difficult in this industry, except for very brief periods, on account of the need to maintain its exacting standards.

6.1.4. It appears that MICO's increase of manufacturing capacity has been effected in all the three departments and the figure of 1,728,000 may therefore be taken as the double-shift capacity of the company for sparking plugs. Auto Accessories' higher figures as furnished by it are based on reclaiming of some machines from other work for manufacture of sparking plug components and on a rise of assembly capacity from 420,000 to 600,000 on single shift basis by employing additional workers. The capacity of this unit on double shift basis without any additional capacity outlay can be taken as $2 \times 420,000 = 840,000$ nos. per annum.

6.2. Production

6.2.1. The production figures for the last five years were as follows:--

Production of Sparking Plugs

	MICO		AUTO ACCESSORIES		Total production Nos.	Index
	Production Nos.	Index	Production Nos.	Index		
1960	879,357	100	311,773	100	1,191,130	100
1961	1,131,539	129	321,068	103	1,452,607	122
1962	746,161	85	334,789	107	1,080,950	91
1963	1,414,431	161	354,264	114	1,768,695	148
1964	1,502,779	171	450,489	144	1,953,268	164

6.2.2. Since the last inquiry production of sparking plug has risen from 1,080,950 nos. in 1962 to 1,768,695 nos. in 1963 and 1,953,268 nos. in 1964. Of the total production MICO accounted for about 80 per cent.

6.2.3. The fall in MICO's production in 1962 is reported to be due to vagaries of demand and some overstocking by dealers in 1961. During the last two years activity was at a high level partly due to defence demands.

6.2.4. Auto Accessories' growth of production was at an even pace till 1964 when there was a spurt. The last two years' record reflects the improvement in demand for plugs and better supply of materials and components.

7.1. It is necessary in any inquiry into the growth of an industry to forecast the probable development of demand for its products. This is all the more necessary in the present case for many reasons. In the first place this is an industry of vital importance to the defence of the country since the efficient operation of the fuel ignitions of petrol driven vehicles depends on an adequate supply of efficient sparking plugs. Secondly, considerable economies of large scale production are available to it, and timely planning may bring significant economy in costs. The manufacturers have stated that demand more than difficulties regarding the supply of raw material has so far operated as a limiting factor of growth. Any increase in the use of sparking plugs by replacing them when they have outlived their efficient life, for the purpose of securing engine efficiency and fuel economies, may itself lead to a vast increase of demand. Indeed, a Committee set up by the D.G.T.D. to study the demand and capacity for production of important components for the automobile industry, took the view that the consumption

of sparking plugs in 1965 may be 2.56 million. At the public inquiry it was explained that this estimate assumed that sparking plugs would be changed when they had spent their useful life and not continued to be used when they functioned inefficiently.

7.2. In our last Report we assessed the demand at 1.6 million plugs for 1963, 1.8 million plugs for 1964 and 2.0 million plugs for 1965. These estimates have at present been slightly exceeded. We have discussed the trends and prospects with all interests at the public inquiry and attempted to assess the demand with the use of various determinants. We have, for example, tried to estimate demand on the basis of the number of motor vehicles and other engines using sparking plugs which will be in operation in each of the next five years, and also on the basis of anticipated consumption of petroleum. However, we have finally come to the conclusion that it would be more realistic to assess the annual increase at 10 to 11 per cent on the basis of the trend of the last few years. This would not allow for any unexpected expansion of the automobile industry, as for example if a new small car unit is set up, or of an increase in the use of sparking plugs due to replacement at shorter intervals than at present. The increase for such reasons is, however, not likely to cause any serious change for another three years by which time a further review of the industry would have to be made. Nor have we allowed for exports on a large scale. A figure of two to three lakh sparking plugs a year for exports during the next four years would seem to be a fair target for the industry. Our estimates of demand for the future are as given below :—

1965	.	.	.	.	.	2.3 million
1966	.	.	.	.	.	2.5 „
1967	.	.	.	.	.	2.8 „
1968	.	.	.	.	.	3.1 „

These estimates found general support at the public inquiry.

7.3. Our estimates of demand have several implications. It will be necessary for the two units to fully exploit the demand potential in order to raise their output and thereby reduce their costs. As stated earlier both the manufacturers have complained of the low level of demand as inhibiting the growth of the industry. *Prima facie* it seems that it is not lack of opportunities to increase sales but rather a failure to exploit them fully that is the cause for the low offtake. It has been stated by the manufacturers and their Associations, time and again, that the Indian consumer of a plug uses it for double the time that his counterpart abroad does, with consequent fuel losses and inefficient engine operation. There is need to educate the consumer about the mileage of the plug that would be good for his vehicle's engine. Any success in this direction could significantly raise the demand.

7.4. Again considering that practically all the raw materials are imported, there is a duty cast on the industry to earn a good part, if not all of the foreign exchange it utilises, by a sales effort in adjoining countries, and in the early stages at any rate, at prices which cut out

the profit element severely or altogether. The export and fiscal incentives available in this connection need to be taken advantage of fully and each unit should build up its production programme with an export target.

7.5. Further, the demand forecasts suggest that an increase of capacity may have to be contemplated and programmed for towards the middle or end of 1967 when existing capacity is likely to be fully extended and some third shift working may be needed. This takes us to the issue of expansion of capacity.

8.1. *Expansion Policy* : Some thought has to be given even now to the policy for future expansion of capacity. Many factors would of course come into play inclusive of the difficulties which arise out of foreign exchange considerations, and the bearing of expansion on production costs. The question of costs is of major importance not only because of the present need to hold the price line, and encourage export, but also because a conscious and continuous effort to reduce costs is a sign of health in the industrial sector, and more so in a protected industry. We have made a rough comparative study of the actual costs of the two existing units for the latest period to judge what possibilities there are of cost reduction. The comparison is not strictly on all fours. For, the costs for one unit were compiled by our Cost Accounts Officer after a scrutiny of its books and were exclusive of items such as bonus, interest, etc. normally excluded from costs compiled by the Commission ; whereas the break-down of costs for the second unit was as submitted by it. Allowing for possible differences in methods of calculation it revealed clearly the following features :—

(a) The unit which manufactures insulators secured a substantial economy in cost thereby ;

(b) Costs of raw materials required for components other than insulators were comparable, since the small difference might reasonably be attributed to higher wastage in the first unit and the difference in the types of the sparking plugs made ;

(c) The incidence per unit of power, labour charges and establishment for assembly and manufacture of components other than the insulators, was much lower for the second unit than for the first.

After taking into account the different rates of power and different scales of wages in the two States where the respective units are located, and different efficiencies of the two units, we are of the view that the lower incidence of labour and establishment under (c) above is a consequence by and large of the much higher scale of production in the second unit. This leads to the view that in seeking expansion of the capacity with proper economy of costs, it is preferable to allow the existing units to increase their capacities rather than establish new units. Both the units at present use very similar equipment and further sophistication is possible only with large increases in demand. They stated in

this connection at the public inquiry that competition with foreign manufacturers is not practicable till the production is increased very considerably, enabling them to adopt advanced methods of mass production.

8.2. *Change of design*: Auto Accessories produces a detachable plug in which the body consists of 2 parts viz., the body proper and the gland nut. The insulator with central electrode is held in the body by the gland nut. It has plans to change over to a non-detachable plug in which the insulator is permanently held in the body by bending over or crimping a part of it over the insulator. It also has plans to change over to a copper glass seal in place of the present method of cementing the central electrode inside the insulator. It has an import application pending for a licence for machinery valued at Rs. 1,15,100. This application covers the following equipment: (1) a hot crimping machine (2) gas or electrically operated furnace (3) special tooling for non-detachable plugs. It will be possible for Auto Accessories to effect certain economies in use of raw material and to increase production of plug bodies on the automatic machines and to some extent to reduce the cost of production by changing over to the use of non-detachable plugs and copper glass sealing. With the change over, the gland nut will not be required and the body will not have to be threaded. With the use of copper glass sealing the three-piece central electrode can be replaced by a two-piece electrode. The central thermo wire will not be necessary and could be replaced with a longer length of steel wire. The changeover, therefore, needs to be facilitated with the release of the foreign exchange needed for additional equipment.

8.3. *Process waste*: In the unit costed inspection during manufacture has resulted in very high rejections—for example, over 12 per cent of the bodies of plugs, and 9 per cent of insulators (an expensive imported item) which became unserviceable in the process of fixing the electrode to the insulator. Such rejections are no doubt satisfactory evidence of the desire of the manufacturer to guarantee quality, and should go down with experience. It emphasises, however, the need to keep the manufacturers fully supplied with raw material requirements of the right specification, a matter which we deal with more fully in our observations on raw materials.

9.1. The quality of indigenously produced sparking plugs is reported to be satisfactory. The 14 mm. sparking plugs of MICO have been covered by I.S.I. Certification Marking Scheme for the last three years. Under this scheme I.S.I. Inspectors make surprise visits to its works and ensure that its production conforms to the Institute's standard specifications. The Inspectors also take sparking plugs selected at random for tests in their central laboratory. Both the manufacturers have sound systems of quality control. Raw materials and components are tested at every stage.

9.2. MICO informed us that it accepted 58 complaints about quality of its products in 1962, 103 in 1963 and 41 in 1964 (Jan-Sept.). On investigation the company found that some of the complaints were

due to long storage at the customers' end. The other complaints according to the company were due to: (a) excessive amount of oil mixed with petrol in two-stroke engines, and (b) failure to select a plug with the correct heat value and (c) malfunctioning of the engine. The company has further stated that hardly any plug was found having manufacturing defects. In some cases the defects noticed were due to damage probably during transport.

9.3. Auto Accessories has stated that it follows British Standards which have been incorporated in Indian Standards laid down by I.S.I. It has also informed us that the number of complaints from consumers regarding quality and performance is negligible. The main complaint, according to this producer, arises from incorrect selection of plugs by the consumer for the specific vehicle.

9.4. The Calcutta Motor Dealers Association, Calcutta has stated that the quality is not upto the standard of foreign make plugs like 'Champion' or 'A.C.'. It has further added that occasionally manufacturing defects are noticed in the plugs after they are fitted into a car and the defects are reported to have been brought to the notice of the manufacturers. When the manufacturers are convinced that the failure is due to manufacturing defects and not to bad handling or wrong selection of the plug they give free replacement. The Association has, however, not furnished us details about the actual defects brought to the notice of the manufacturers. Ideal Jawa (India) Private Ltd., Mysore, has found the quality to be satisfactory but it has also pointed out the following defects in indigenous sparking plugs: (i) crack in insulator resulting in spark flowing through the insulator, and (ii) ignition spark failure or uneven sparking. This company brought to the notice of the manufacturers only those cases where the defects were noticed in new plugs and such plugs were returned to the manufacturers for their inspection and replacement. The Calcutta State Transport Corporation, Calcutta, has also stated that the indigenous quality is not upto the standard of imported quality but it has not specified the nature of the defects.

9.5. MICO has furnished details about the quality control techniques introduced by it since 1963 with a view to ensuring and maintaining the high quality of its plugs. Auto Accessories has also stated that it has facilities for testing materials and finished products for quality at its own works. Each and every sparking plug is reported to be tested prior to packing. It also sends samples of both materials received and finished products to its principal, who has up-to-date facilities, for the necessary tests. Apart from this, the company also periodically sends plugs to the Government Test House, Alipore for test and certification.

9.6. We have no doubt on the whole that the two brands of sparking plugs made in the country are fully up to the standards of the foreign trade names with which they are associated, and that for that reason they should be acceptable to all users.

10.1. The sparking plug consists of three main parts, the insulator (a ceramic product), the central electrode, and the metallic body which is screwed to the cylinder head of the car. Auto Accessories makes the last of these in two parts which fit into one another and thereby produce a detachable plug, but has decided to go over to a non-detachable one to reduce costs and facilitate maintenance. The raw materials constituting about 23 to 26 per cent of the total cost of manufacture are (i) hexagonal bright drawn free-cutting steel bars, (ii) wire for electrodes, (iii) bright drawn free-cutting brass rods, (iv) copper sheets for washers and (v) chemicals like sodium silicate solution, cement filler, and high refractory cement powder. In the case of MICO, alumina for the insulator is imported and accounts for a further 3 per cent, whilst about 40 per cent is involved in importing the insulator complete in the case of Auto Accessories.

10.2. *Hexagonal bright drawn free-cutting steel bars.*

10.2.1. In the last Report the Commission had observed "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." MICO has lately started importing black bars from Germany and getting them bright drawn indigenously, to the required size.

10.2.2. Auto Accessories stated that although it would prefer to import bright drawn bars, if it could, it has been importing black bars for about one and half years and getting them bright drawn indigenously. It has also tried to use indigenous mild steel bars but the breakage of threading rolls (imported) and rejections on the automatics are very heavy and also require an increase of manufacturing cycle time due to use of inferior material, leading to a loss of production.

10.2.3. In paragraph 5.4 we have indicated that Government have licensed 5 companies for the manufacture of free-cutting steel. Chase Bright Steel Ltd. has informed us that its installed capacity on two shift basis for the manufacture of bright steel bars and shaftings is 42,000 tonnes per annum (this includes free cutting mild steel). This capacity is for drawing and not for manufacture of primary metal. The Department of Iron and Steel has informed us that a capacity of 14,400 tonnes of primary metal of free cutting quality has been licensed to this unit and is expected to go into production in 1966-67. It has reported that in 1963 and 1964 it produced 3,500 tonnes and 5,500 tonnes respectively of bright drawn bars by drawing from black bars. The company claims to be able to produce bright steel bars and shaftings of standard quality and to have spare capacity to meet the requirements of the sparking plug industry. The main difficulty was stated to be inadequate supplies of black steel bars in free cutting quality which have to be imported. Guest, Keen, Williams Ltd., has informed us that the range of special steels and bright steel bars which it produces covers many industrial uses apart from steel required for the manufacture of sparking plugs. However, the firm does not produce free cutting

steel of the specification required by sparking plug manufacturers. It has informed us that it is willing to examine the matter if specification and estimates of demand are furnished. The installed capacity for bright steel bars is stated to be 12,200 tonnes per annum on single shift basis. The Department of Iron and Steel has informed us that a capacity of 2,000 tonnes per annum of free cutting steel has been licensed to it. The Durgapur Alloy Steel Plant will not manufacture free cutting steel. According to the information furnished to us the capacity licensed for free cutting steel is inadequate and that even by the end of the Fourth Five Year Plan there will be a wide gap between supply and demand which will have to be covered by imports.

10.3. *M.S. rivetting quality steel wire for central electrode*: MICO has stated that contrary to its expectations it has found a possible source for this material in India. Unfortunately some trial batches received by it had to be rejected as the quality was not according to its "close specifications". It has subsequently found another manufacturer for this material and trial orders have been placed on him. Auto Accessories has been meeting its requirements of raw materials for the steel wire for central electrode from indigenous sources. In its case because of the design of the central electrode the material does not have to be of the cold heading quality but the threads have to be rolled. Since indigenous steel of this type is used in the manufacture of many types of screws which are cold headed and thread rolled, there should be no difficulty in substituting it for imported material.

10.4. *Insulators.*

10.4.1. The insulator is the most expensive part of the sparking plug and accounts for nearly 40 per cent of the total cost of production. MICO completed the installation of its plant for manufacture of insulators in 1963 and production commenced in May 1963. The rated capacity of the plant is 3.6 million insulators per annum and present production is about half this figure. The kiln has to operate continuously, *i.e.*, 24 hours a day and all days in the year. Repairs to the kiln including the time to be allowed to cool down and warm up to the required temperature after rebuilding or repairs is a lengthy process and the manufacturer has to maintain buffer stocks to tide over the necessary period of shut-down for renovation. MICO has stated that it aims at maintaining a buffer stock equal to six months' production. If Auto Accessories starts purchasing insulators from MICO it would also have to maintain a six months' buffer stock. Assuming that the kiln has to be completely rebuilt every six years with a total shut-down of six months the effective capacity per year of the kiln will only be equal to 11 months' production per year, *i.e.*, $11 \times 300,000 = 3.3$ million pieces per annum.

10.4.2. In paragraph 5.9 we have referred to the difficulties encountered by MICO in obtaining calcined alumina of requisite quality from indigenous sources. The Central Glass & Ceramic Research Institute has stated that indigenous alumina was processed

and used at the Institute for the manufacture of a sparking plug which has been declared by the Government Test House, Alipore to conform to Indian Standard Specifications. MICO having tested this insulator through its collaborators informed the Institute that it did not meet the requirements of engines with compression ratio of over 1:7 and is not willing to use it even though it would meet the needs of almost all cars in India. The C.G.C.R.I. has complained that the plug manufacturers have not shown much interest in co-operating with its research or exploiting its process but since a satisfactory insulator is now being manufactured by MICO the question need not be pursued.

10.4.3. The total imports of this special alumina are at present about 80 tonnes valued at a little under Rs. 90,000 per annum, and might go up to about 160/200 tonnes to meet total requirements by the end of 1968 if MICO undertakes the manufacture of insulators for Auto Accessories as well. The amount of foreign exchange involved is not inconsiderable. Since no complicated process is involved in the production of calcined alumina we are hopeful that MICO would be able to establish an Indian source of production either through Micro Abrasives, or other firms at Calcutta, who the representative of the C.G.C.R.I. considers are likely to be interested and competent to produce it.

10.5. *Nickel Alloys for Electrodes :*

10.5.1. Various grades of nickel alloy wires are required for the electrodes. MICO's central electrode consists of a piece of steel wire and a piece of nickel manganese silicon alloy wire. The two are held in place inside the insulator by a copper glass seal. Auto Accessories' central electrode consists of three pieces of wire butt welded together end to end and held in place inside the insulator by a cement. The top piece, which is also the terminal, is of steel, a central piece of thermo alloy, and the tip of sparking plug alloy. The earth electrode in the case of MICO is a rectangular nickel wire and in the case of Auto Accessories either nickel alloy R63, or mangonic strip depending on the type of plug.

10.5.2. All nickel alloys are imported. Nickel alloys have many applications not only in sparking plug but in other electrical industries such as resistor wires, electrodes for neon lamps, grids and plates for use in the thermionic valves etc., and it is desirable that some capacity for manufacture of nickel alloys should be created in the country.

10.6. *Gaskets, rings and washers :*

10.6.1. In the last Report the Commission observed "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."

We have explained in paragraph 5.8 the extent to which this suggestion has to be implemented.

10.6.2. MICO's sparking plugs have a top ring of round steel wire, a lower gasket punched from sheet steel and copper plated and an external gasket. In the case of the ring MICO has tried two manufacturers one of whom has been unsuccessful due presumably to difficulties in obtaining proper material and negotiations are in progress with the other. MICO anticipates that the material will have to be imported. For the lower gasket it has tried two parties. The first was not very successful but the samples of the other are encouraging and the company has asked for bigger batches for trials. The upper ring and lower gasket are simple to manufacture but the outer gasket is complicated because it has three folds. MICO has stated that it is attempting to build up capacity for this item.

10.6.3. Auto Accessories' plug has one internal washer which is punched from copper sheet and an external washer with a 'U' shaped cross section which is imported.

10.7. *Free cutting brass rods* : Free cutting brass rods are required for the manufacture of the terminal nut. This is available indigenously.

10.8. *Copper Glass Granulates* : MICO uses this material to fix the central electrode in place in the insulator. The constituents are copper powder and low melting glass. MICO has informed us that copper powder of the required fineness is not available in India. The Central Electro-Chemical Research Institute, Karaikudi has done some research on manufacture of copper powder and published a paper on it. Though a number of firms evinced interest in this process, no production unit appears to have been set up.

10.9. *Supply and prices* :

10.9.1. During the period between the last and the present inquiries shortage of raw materials and components was clearly no limiting factor on production. This is in refreshing contrast to the position at the last inquiry. However, both the firms had to go to the market for a part of their raw material supplies. Whilst this has not noticeably affected the production or costs of one of them, the use of sub-standard hexagonal steel has affected the other adversely, leading to idle time, machine breakdown, and tool shortages. Wastage has been higher than it should be, and there have been consequent losses in assembly costs. Economies should be possible if licences for their full requirements of raw material are made available to them in time. The foreign exchange involved is eventually the same whether they import direct or buy from a middleman who imports them in the first instance. The necessary assistance should therefore be given to them except to the extent that the primary importer is also a processor of the raw material and there is an advantage in including it in the latter's import quota.

10.9.2. During the last two years while the prices of raw materials have risen the prices of components generally declined. The table below giving the price relatives for important items shows the trend of representative prices during the last five years.

Representative Price Relatives for Important Materials and Components
(1960=100)

Item	1960	1961	1962	1963	1964
1. Hexagonal bright drawn free cutting steel bars	100	100.9	104.3	122.0* 114.1	120.0* 113.2
2. Bright drawn free cutting brass bars . . .	100	101.8	99.9	105.7	113.6
3. Round nickel manganese silicon alloy wire	100	103.4	101.5	108.9	110.6
4. Upper disc . . .	N.A.**	100	101.8	100.6	91.5
5. Lower disc . . .	100	68.4	40.4	52.3	41.5
6. Seating washers . . .	100	102.3	108.3	98.4	95.4
7. Insulators	100	111.2	111.3	100.5	107.4†

NOTE : Derived from annual expenditure on purchase.

*Domestic purchase.

†Does not relate to indigenously produced insulator.

**N.A.—Not available for 1960 ; hence 1961=100.

It is difficult to anticipate what the industry would have to pay for these items in the coming years as this would depend on import prices and the extent of import-substitution.

10.9.3. Both the manufacturers have made fair attempts to locate local supplies of substitutes for imported materials and components. MICO has a small department to build up such sources of supply. Even if such substitution leads to slight increases of cost it is worthwhile because of the saving of foreign exchange and decreased dependence on imports which would give the industry further stability. One possible advantage to be had by purchase of domestic materials is the saving on account of customs duty. The import duty content comes to about 35 per cent of the total materials' cost at 1964 levels. About 80 per cent of the import duty is accounted for by insulators. It cannot, however, be said how much of this saving would be offset by excise duties and higher prices for indigenous materials. It is to be hoped that domestic prices of steel and brass items, at least, would compare favourably with the present c.i.f. prices.

10.9.4. On the basis of information obtained from the industry the quantity of the major materials and components required for an

output of 3 million plugs to meet the 1968 demand estimate would be approximately as follows :—

1. Bright drawn free cutting steel bars	375 tonnes
2. Nickel alloys	5.4 tonnes
3. M. S. rivetting quality steel wire	12 tonnes
4. Free cutting brass rods.	11 tonnes
5. Alumina	160 tonnes
6. Lower Disc	3 million
7. Upper Disc	3 million
8. Seating washers	3 million

10.10. *Economic aspects of the insulator manufacturing project :*

10.10.1. An important development in the industry since the last inquiry has been the commencement of production of insulators by MICO within the expected time. This activity which began in the middle of 1963 marks an important import-substitution effort by the sparking plug industry. This single component of the plug, if imported as such, accounts for about 63 per cent of the materials cost of sparking plug and nearly 40 per cent of the total cost of manufacture. According to the information given to the Commission in 1963 the scheme has cost MICO Rs. 25 lakhs of capital investment, most of which was in foreign exchange.

10.10.2. The main feature of insulator manufacture is that it is very capital-intensive where fixed costs (depreciation and overheads) constitute more than 62 per cent of the factory cost at the present level of production. Indeed, if a part of the other items of cost (part of labour, establishment) which can be taken as fixed are also reckoned, the fixed cost percentage will be much higher. As in the case of sparking plugs, therefore, insulator manufacture allows for economies of scale. Any evaluation of the scheme has to be based on two considerations. First, from the view of the industry, it has to be estimated to what extent the domestic production of insulators has contributed to a reduction in the manufacturing cost of sparking plugs. The second consideration, which is a national one, is the *net* foreign exchange saving to the country that has resulted by undertaking the production of the item within the country.

10.10.3. We have not costed the manufacture of insulators by MICO, since manufacture has only recently commenced, but have examined these issues from figures furnished by the company. It would appear from these figures that cost of manufacture at present is above the c.i.f. costs ex-duty, but is less than the landed cost with duty. The plant is now working upto 50 per cent of capacity. It may, therefore, reasonably be expected that with increases in production from the present figure to fuller if not maximum capacity, there will be further economies.

10.10.4. We estimate that the *net* foreign exchange saving would be of the order of Rs. 26 per 100 insulators, or about Rs. 6 lakhs for a production of slightly over 2 million plugs during 1965. The figure will go to above Rs. 7 lakhs if indigenous alumina replaces the foreign material.

11.1. *Import control policy*: For the purpose of import control, sparking plugs fall under S. Nos. 293, 295 and 297 of Part IV of the Import Trade Control Schedule and are included in List III, Appendix XXVI which relates to the licensing policy for motor vehicle parts. The import licensing policy pursued by Government since the last inquiry is indicated below :

During the period, April 1963—March 1964 a quota of 1¼ per cent was fixed for established importers but the licences issued were not valid for import of sparking plugs of 14 mm. and 18 mm. sizes. Licences issued under this item permitted import of one sparking plug water-proof cover along with each sparking plug provided the value of the licence was not exceeded thereby. The same licensing policy has been continued during the current licensing period, namely, April 1964—March 1965. It will be observed that imports of sparking plugs of 14 mm. and 18 mm. sizes have been banned.

11.2. *Imports*: Imports of sparking plugs are recorded in Kgs. in the Monthly Statistics of the Foreign Trade of India. However, the Director General of Commercial Intelligence and Statistics, Calcutta, furnishes to the Commission the quantity of imports of sparking plugs by numbers. A statement showing countrywise imports of sparking plugs during 1963 and 1964 (upto September) is given in Appendix IV. The Collectors of Customs, Madras, Cochin and Bombay have reported that no imports of protected sizes were noticed during recent months through their ports. The Collector of Customs, Calcutta has stated that there have been no imports of 14 mm. and 18 mm. sizes during the last two years except negligible and stray items recorded, *inter alia*, in larger shipment of other goods. Imports of sparking plugs, therefore, have been mostly of non-protected sizes.

12.1. We would like to make a few remarks on the export prospects of the industry. The industry has yet to make an impression in this field, and to take advantage of the prospects of overall reduction of costs if exports on large scale can be built up. The manufacturers have posed two problems in this connection. The consumer preference for original equipment fitted to their cars, and the high cost of production at the levels of today's manufacture. While we agree, in relation to the first point to the extent that the export of Indian automobile will create a market for Indian sparking plugs, we do not feel that consumer preference can be a strong factor since the major manufacturer is allowed to use a trade name which has a world reputation. The second obstacle is no doubt a difficult one, but somewhat begs the question since a substantial export demand may increase production to levels at which costs would

come down nearer to competitive ranges particularly if advantage is taken of refunds of import duty on raw materials used in manufacture, and of other export incentives.

12.2. For some considerable time, however, exports would have to be at below domestic prices and at small or no profits. The industry should, however, earn at least a good part of the foreign exchange it utilizes and thus make an immediate contribution to alleviating the present foreign exchange difficulties of the country, which affect all industries. It should also set itself increasing targets of export with the object of becoming one of the engineering industries which contribute to our foreign exchange earnings. Such a position is not incapable of achievement as seen from export price quotations which we have received from foreign countries. There is, therefore, a need for the industry to explore possibilities of exports with determination, and with long term objectives.

13. Automobile sparking 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 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 United Kingdom	A British Colony	Burma	
1	2	3	4	5	6	7	8
*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						

1	2	3	4	5	6	7	8
	tractors namely :—						
	Sparking plugs of 14 mm. and 18 mm. sizes including the resistor types but excluding integral-ly screened types.	Protective	77 1/2 per cent <i>ad valorem</i>	..	..	..	December 31st 1965.

* (i) Under Government of India, Ministry of Finance (Revenue Division) Notification No. 196-Customs, dated the 24th December, 1955, as subsequently amended by Ministry of Finance (Department of Revenue) Notification No. 220—Customs, dated the 27th September, 1963, 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 70 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.

(ii) By the Finance Act 1963 and continued by the Finance Act 1964, an additional customs duty of 10 per cent of duty is leviable with effect from 1st March 1963.

(iii) Regulatory import duty at 10 per cent *ad valorem* has been levied with effect from February 1965.

14.1. Our Cost Accounts Officer examined the cost of production of sparking plugs manufactured by Auto Accessories Ltd. This unit has been selected for costing for the first time. Besides sparking plugs, the company manufactures cycle valves and also undertakes sub-contracting work for producing components for the automobile and bicycle industries. The period selected for costing was the accounting year ended 30th September 1964 during which the company achieved its highest production of plugs during the course of the last few years. The department for the manufacture of cycle valves is more or less separate but the sparking plug and sub-contract components are manufactured in the same department. In this department, the machines on which the sparking plug components are manufactured are also used for sub-contract jobs, whereas there are certain machines which are specifically used against sub-contract work. The company maintains certain statistical records and cost data. With the help of these particulars, the costs were worked out with a reasonable degree of accuracy for four popular types of plugs *viz.*, TFS-50 and F.50 under 14 mm. size and M-30 and M-60 under 18 mm. size.

14. Cost of production and fair ex-works prices

14.2. The costs of production were discussed with the company's representatives and after discussion with them, we have framed estimates of the fair ex-factory prices for future. The company has a plan to manufacture non-detachable sparking plugs for which purpose an application for licence for importing machinery has been submitted to Government. With the commissioning of the new machine it proposes to switch over to the use of copper-glass granulate in place of the existing method of using refractory cement powder and cement filler. With the shift to the manufacture of non-detachable sparking plugs coupled with the adoption of copper glass fusion process, its cost of production will undergo a change and we anticipate it will be lower. It is, however, not certain when the company will be in a position to switch over to the production of non-detachable plugs. Under the circumstances we have estimated the costs of plugs currently being produced. In estimating the fair ex-factory prices, an average production per annum for the next three years was adopted at 6.833 lakh pieces and the pattern of production of the different types was estimated to be in the same proportion as in the actual period. The consumption of materials for the manufactured components was estimated at the same level as during the actual period and in anticipation of improved operation a certain economy in the wastages of components was assumed. The latest prices were adopted in estimating the cost of raw materials. The company represented that in view of the foreign exchange difficulty it may not be in a position to procure licences to import free cutting steel bars for its full requirement but to achieve its production target it would have to purchase certain quantities of steel from the established importers. Its representation was considered and a reasonable provision was made for the higher prices to be paid for local purchase of imported steel bars. The company is negotiating with its foreign collaborator as also with MICO to arrive at a final settlement for purchasing insulators from MICO. The company stated that it would take some time more to finalise an arrangement. The probable price the company will have to pay was discussed with its representatives and a reasonable estimate was adopted. Provision was made for the increase in the labour complement in the assembly department that will be needed for the increased volume of production. A revision of pay structure for the workers and staff is under negotiation between the management and the union. Reasonable provision was made for the anticipated increase in salary and wages including normal annual increments. The level of consumption of electricity and consumable stores per unit of production was estimated to be the same as for the actual period and reasonable increase for repair and maintenance charges was provided for, for the higher volume of production. Allowance was also made for probable increases in the prices of stores. In regard to the overhead expenses an increase was estimated on the merit of each item. Depreciation was calculated at the normal income-tax rates. The level of consumption of packing materials for the actual period was adopted for the future estimates and latest prices were taken into account. Royalty was provided for according to the agreement with the foreign collaborator. An allowance for contingencies has been made at 5 per cent on the works cost. The working capital included in the capital

employed has been taken at six months' cost of production and the return on capital employed has been provided for at 12 per cent. Our estimates of fair ex-works prices per 100 pieces are given below :

Thread size Type	Rs./100 pieces			
	14 mm TFS—50 3/8" Reach	14 mm F—50 1/2" Reach	18 mm M—30 1/2" Reach	18 mm M—60 1/2" Reach
	1. Material cost	115·90	118·42	126·97	125·47
2. Manufacturing cost including royalty	56·80	56·95	68·75	68·58
3. Cost of production	172·70	175·37	195·72	194·05
4. Add for contingency	8·18	8·31	9·33	9·25
5. Return	12·77	12·93	14·85	14·74
6. Fair ex-works price	193·65	196·61	219·90	218·04
7. Fair ex-works price per piece	1·94	1·97	2·20	2·18

15. In view of the ban on imports of sparking plugs of 14 mm. and 18 mm. sizes, we have obtained f.o.b. quotations from our Trade Representatives abroad. Based on these prices we have computed c.i.f. price for plugs manufactured in England at Rs. 1·22 for the purpose of comparison with fair ex-works prices of the indigenous products. The bulk of the production in the country being sparking plugs of 14 mm. short reach type, we have adopted that type in calculating the price disadvantage which is shown below :

	Rs. each
(a) C. I. F. Price	1·22
(b) Customs duty :	
(i) Tariff excluding regulatory duty	0·94
(ii) Regulatory duty	0·12
(c) Clearing charges	0·01
(d) Landed cost	2·29
(e) Landed cost excluding duty	1·23
(f) Landed cost including regulatory duty but excluding other tariffs	1·35
(g) Fair ex-works price including duty on imported components	1·94
(h) Disadvantage of (g) against (e)	0·71
(i) (h) as a percentage of (a)	58·2%
(j) Disadvantage of (g) against (f)	0·59
(k) (j) as a percentage of (a)	48·4%

The regulatory duty of customs may continue for some time to come but since it is in addition to basic import duty, we have, while settling the quantum of protection left it out of account. The above table indicates that the disadvantage of the industry is 58.2 per cent as against the existing duty of 70 per cent *ad valorem* preferential. We therefore consider that the present protective duty needs reduction and as a measure of protection a duty of 60 per cent *ad valorem* preferential and 67.5 per cent *ad valorem* standard will be adequate.

16.1. Both the manufacturers have contended that at the level of demand and production in the country competition with foreign producers will for many years be an impossibility. The production of the larger unit, MICO, will in the near future approach 2 million a year as against 8 million a month of its collaborators in Germany, and of 5 million a day of a leading manufacturer in the U.S.A. Advanced methods of mass production cannot at the present level of demand be employed in this country, with all the attendant economies. MICO has stated that the two year extension of the period of protection granted after the last inquiry is too short a time to enable a fair assessment of the progress of the industry. It has, therefore, suggested that the period of protection should be sufficiently long, say at least five years. Important points made by the industry in support of its claim for the continuance of protection are (i) The bare landed cost of all the materials is higher than the approximate c.i.f. cost of imported sparking plugs, (ii) The internal demand for sparking plugs is comparatively low and therefore it is not possible for the indigenous industry to achieve high levels of production in the near future. In view of this the industry will not be able to withstand competition from industrially advanced countries which employ advanced techniques of mass production to achieve considerable economies in the cost of manufacture, (iii) The industry still faces the problem of dependence on imports for raw materials.

16.2. *Views of other interests* : The Association of Indian Automobile Manufacturers, Bombay, has stated that since the Indian sparking plug industry cannot hope to achieve high levels of production in the foreseeable future, it will not be able to withstand competition from industrially advanced countries. It is, therefore, of the view that protection to the industry would have to be extended till such time as economic levels of output are attained in India. Without making any categorical statement on the continuance of protection, the D.G.T.D. has stated that the industry may be considered to have been well established in the country. The Director of Industries, Government of Mysore, Bangalore, has endorsed the industry's claim for the continuance of protection. The Ministry of Defence, on the other hand, has expressed itself against further extension of protection on the ground that the industry has been in existence for a long time and is firmly established. It, therefore, feels that the industry could be exposed to foreign competition which would help develop the efficiency of the domestic industry, improve the quality and reduce the prices of its products. The Calcutta Motor Dealers' Association, Calcutta, the Premier

Automobiles Ltd., Bombay, Bajaj Auto Ltd., Poona, Krishi Engine Private Ltd., Hyderabad, and Premier Auto Electric Ltd., Bombay are in favour of extending protection to the industry beyond 31st December 1965.

16.3. It could be argued that having regard to the progress of the industry and the present ban on imports of the protected sizes, tariff protection need not be continued. The Commission, however, cannot anticipate future import policy in relation to sparking plugs or envisage to what extent imports may occur through the use of export promotion incentive licences or other arrangements. Small quantities of the banned sizes of plugs also occasionally come into the country. Besides, while a quantitative restriction of imports is from the view-point of indigenous industry the best form of protection, a protective duty carries other implications. The declaration of a duty on imports as 'protective' gives the Commission the statutory right to examine the progress of an industry and its costs of production, a right which is of obvious importance to the consumer. Also the manufacture of the insulator, which is a major component of a sparking plug, has only recently been established and will require some time for stabilization. We accordingly recommend that protection to the sparking plug industry should be continued for a further period of three years, *i.e.* till 31st December, 1968 but the protective rates of duty should be reduced to 60 per cent *ad valorem* preferential and 67.5 per cent *ad valorem* standard. These rates of duty are exclusive of the surcharge and the regulatory duty.

17.1. The selling system of both the producers is as it was at the time of the last inquiry, except that Auto Accessories has terminated the services of Armstrong Smith Ltd. for distribution of its plugs. MICO supplies sparking plugs as original equipment direct to the vehicle manufacturers from its factory at Bangalore. A limited quantity of plugs is sold across the counter at its own Sales Houses in Bombay, Madras and Calcutta. The sale as spare parts is effected mainly through distributors at 18 important centres in the country. The distributors, in turn, sell them to stockists appointed by them and also to the retail trade, who in turn sell them to the consumers. Auto Accessories, as in the case of MICO sells its products directly as original equipment to vehicle manufacturers and to Government departments against D.G.S. & D. rate contracts. The rest of the company's sales which used to be done through its principal distributor, Armstrong Smith Ltd., is now done by the company direct.

17.2. *Selling prices :*

17.2.1. It is observed that the selling prices of both the companies are on the same pattern. Both have reduced their selling prices (*Vide* Appendix V) by similar margins and the reduction meets the Commission's recommendation in its last Report (1963) to a point. MICO and Auto Accessories have stated that they have reduced their selling prices to all original equipment customers from Rs. 1.50 to Re. 1.00, to D.G.S. & D. against rate contracts from Rs. 2.50 to Rs. 2.45

and to customers from Rs. 3.50 to Rs. 3.35 per plug. To distributors MICO has reduced its price from Rs. 2.65 to Rs. 2.50 and in the case of Auto Accessories, it has reduced its price from Rs. 2.41 to Rs. 2.26. The maximum reduction has been in the case of original equipment. This price, however, is intended primarily for sales promotion and is indeed below cost. It is designed to take advantage of the preference of the normal user to replace his plugs with the same brand as his original equipment. It is also in keeping with international practice, where very often the vehicle manufacturers are supplied with plugs free by the producer as a sales-promotion measure. Price reductions at all other levels have not exceeded Re. 0.15 per piece. While this reduction could be attributed to the economy effected in the cost of insulator in the case of MICO, Auto Accessories does not appear to have had any such favourable ground to bring down its prices except perhaps increased production. We consider that further economies should be possible as production goes up.

17.2.2. The Calcutta Motor Dealers' Association has expressed the view that the prices seem to be high whilst most of the other consumers have stated that the prices charged by the domestic producers 'are reasonable. Two noticeable features are firstly that retail prices are at the same level as in the U.S.A. and U.K. even though costs ex-works are higher, and that sparking plugs are amongst the few motor vehicle spare parts that can be purchased anywhere in the country at manufacturers' list price. Nevertheless our cost examination and the higher levels of output expected in the coming years suggest that the industry should be able to further reduce prices in course of time. In this connection we may refer to the Ministry of Commerce and Industry Circular No. A.E.Ind.1(40)/61, dated 15-1-1962 regarding consumer prices for imported automobile ancillary items. The margin of 70 per cent allowed between the landed cost and consumer price in the case of fast moving imported parts should be broadly applicable as a mark up over ex-factory costs in the case of domestic sparking plugs also.

18. Our conclusions and recommendations may be summarised
 Summary of conclusions and recommendations as under :--

(i) Demand for sparking plugs is estimated at 2.3 million plugs in 1965, 2.5 million in 1966, 2.8 million in 1967 and 3.1 million in 1968. These estimates do not take into account any unexpected expansion of the automobile industry as for example, the establishment of a small-car unit or increased demand due to replacement of plugs at shorter intervals than at present.

(Paragraph 7.2)

(ii) An increase of capacity for sparking plugs may have to be contemplated and programmed for towards the middle or end of 1967 when the existing capacity is likely to be fully extended and some three shift working may be needed.

(iii) It is preferable to allow the existing units to increase their capacities rather than establish new units.

(Paragraph 8.1.)

(iv) Auto Accessories' programme to change the design of its plug should be facilitated with the release of the foreign exchange needed for additional equipment as it will reduce costs.

(Paragraph 8.2.)

(v) The two brands of sparking plugs made in the country are fully upto the standards of the foreign trade names with which they are associated and for that reason they should be acceptable to all users.

(Paragraph 9.6.)

(vi) Indications are that the capacity licensed for free cutting steel is inadequate and that even by the end of the Fourth Five Year Plan there will be a wide gap between supply and demand which will have to be covered by imports.

(Paragraph 10.2.3.)

(vii) There should be no difficulty in substituting indigenous M.S. rivetting quality steel wire required for the central electrode for the imported material.

(Paragraph 10.3.)

(viii) It is desirable that some capacity for the manufacture of nickel alloys should be established in the country.

(Paragraph 10.5.2.)

(ix) Timely issue of import licences for the required materials can result in cost economies. They should, therefore, be given to the manufacturers except where they are a part of the quota of a processor of the material.

(Paragraph 10.9.1.)

(x) With increases in the production of insulators to fuller, if not maximum, capacity of its plant by MICO, there will be further economies in the cost of manufacture of insulators.

(Paragraph 10.10.3.)

(xi) There is a need for the sparking plug industry to explore possibilities of exports with determination and with long-term objectives.

(Paragraph 12.2.)

(xii) Protection to the sparking plug industry should be continued for a further period of three years *i.e.* till 31st December, 1968 but the protective rates of duty should be reduced to 60 per cent *ad valorem* preferential and 67.5 per cent *ad valorem* standard.

(Paragraph 16.3.)

(xiii) Cost examination and the **higher** levels of output expected in the coming years suggest that the sparking plug industry should be able to further reduce prices in course of time.

(Paragraph 17.2.2.)

19. We wish to thank the manufacturers, importers and consumers of sparking plugs and various Government departments for their assistance in connection with this inquiry.

M. P. PAL
Chairman.

R. BALAKRISHNA,
Member.

B. G. GHATE,
Member.

PRAMOD SINGH,
Secretary.

BOMBAY:

Dated the 3rd April, 1955



APPENDIX I
[Vide paragraph 3·1]

List of parties addressed by the Commission in Connection with the Inquiry

NOTE :—*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., Forbes Building, Home Street, Bombay-1.
- *2. Motor Industries Co. Ltd., Post Box No. 93, Bangalore-1.
- *3. Prestolite of India Ltd., 2-A/3 Asaf Ali Road, New Delhi-1.

B. ASSOCIATIONS :

- *1. Association of Indian Automobile Manufacturers, Army and Navy Building, 3rd Floor, Mahatma Gandhi Road, Fort, Bombay-1.
- *2. Calcutta Motor Dealers' Association, 16, Rajendra Nath Mukherjee Road, (Old No. B-6, Mission Row Extension), Calcutta-1.
- *3. The Bombay Motor Merchants' Association Ltd., Sandhurst Bridge, Sukhsagar, Third Floor, Bombay-7.
- 4. Federation of All India Automobiles Spare Parts Dealers' Association, 3620/21 Netaji Subhas Marg, Daryaganj (Faiz Bazar), Delhi-6.

C. CONSUMERS :

- *1. Automobile Products of India Ltd., Bombay Agra Road, Bhandup, Bombay-78 (NB).
- *2. Hindustan Motors Ltd., 4, India Exchange Place, Calcutta-1.
- *3. Mahindra & Mahindra Ltd., Gateway Building, Apollo Bunder, Bombay-1.
- *4. The Premier Automobiles Ltd., Agra Road, Kurla, Bombay-70 (AS).
- *5. Standard Motor Products of India Ltd., 29, Mount Road, Madras-2.
- *6. The Enfield (India) Ltd., Royal Enfield Buildings, Post Bag No. 5284, Thiruvottiyur, Madras-19.
- *7. Ideal Jawa (India) Pvt. Ltd., Industrial Estate, Mysore-2. (South India).
- *8. Bajaj Auto Ltd., Chinchwad, Poona-19.
- *9. Escorts Ltd., Paratap Building, Connaught Circus, New Delhi-1.
- *10. Krishi Engines (Pvt.) Ltd., A-7 Unit, Industrial Estate, Sanatnagar, Hyderabad-18 (A.P.)
- 11. Burmah Shell Oil Storage & Distribution Co., Burmah Shell House, Currimbhoy Road, Ballard Estate, Bombay-1.
- †12. Ahmedabad Municipal Transport Service, Transport House, Outside Jamalpur Gate, P.O. Box No. 142, Ahmedabad-1.
- *13. Bombay Electric Supply and Transport Undertaking, Best House, Post Box No. 192, Bombay-1.
- †14. The Anamallais Bus Transport (Pvt.) Ltd., Goods-Shed Road, Pollachi.
- †15. General Manager, Punjab Roadways, Amritsar.
- *16. Director, Madras State Transport Department, 24-E, Chamiers Road, Nandanam, Madras-35.

- *17. Chief Executive Officer, Calcutta State Transport Corporation, 5, Nilgunge Road, Belghoria, 24-Parganas, West Bengal.
- 18. The Director General of Ordnance Factories, 6, Esplanade East Calcutta-1.
- *19. The Commandant, 515, Central EME Workshop, Bangalore-8.

D. IMPORTERS :

- †1. A. R. Mukherjee & Co., Post Box No. 2273, P-74, Bentinck Street, Near Esplanade, Calcutta-1.
- †2. The Associated Auto Part Pvt. Ltd. 445, Lamington Road, Bombay-4.
- 3. Cycle & Automobile Components (Pvt.) Ltd., 4, Mission Row, Calcutta-1.
- †4. Dodge & Sevmour (India) Pvt. Ltd., Laxmi Building, Ballard Road, Ballard Estate, P.O. Box No. 144, Bombay-1.
- †5. George Oakes Ltd., P.O. Box No. 499, Bombay-1.
- †6. India Motor Parts and Accessories Ltd., 1/155, Mount Road, Post Box No. 2422, Madras-2.
- *7. Madras Auto Service Pvt. Ltd., 37, Mount Road, Madras-6.
- *8. Premier Auto Electric Ltd., 69, Tardeo Road, Bombay-34-WB.
- 9. Raja Ram & Sons, Nehru Garden Road, Jullundur City.
- *10. Rane (Madras). Ltd., Post Box No. 2628, Ganapathi Building, 47, Velacheri Road, Madras-32.
- 11. Vora Bros., New Queen's Road, Near Opera House, Bombay-4.

E. PROSPECTIVE SUPPLIERS OF RAW MATERIAL :

- *1. The Indian Aluminium Co. Ltd., 31, Chowringhee Road, Calcutta-16.
- *2. The Aluminium Corporation of India Ltd., 7, Council House Street, Calcutta-1.
- *3. Hindustan Aluminium Corpn. Ltd., P.O. Renukoot, Dist. Mirzapur (U.P.)
- *4. Chase Bright Steel Ltd., Vaswani Mansion, Dinshaw Vachha Road, Bombay-1.
- *5. Guest, Keen, Williams, Ltd., 41, Chowringhee Road, Calcutta-16.
- *6. General Manager, Hindustan Steel Ltd., P.O. Hinoo, Ranchi (Bihar).
- *7. General Manager, Hindustan Steel Limited, Alloy Steels Project, Durgapur-8 (West Bengal).

F. GOVERNMENT DEPARTMENTS :

- *1. Secretary to the Government of India, Ministry of Defence, New Delhi.
- *2. The Director of Vehicles, Army Head Quarters, (Vehicle Transport) New Delhi.
- *3. The Director of Co-ordination and Statistics, Directorate General of Supplies and Disposals, (Deptt. of Supply), National Insurance Building, Parliament Street, New Delhi.
- *4. The Director of Industries, Government of Maharashtra, Sachivalaya Annexe, Bombay-32.
- *5. The Director of Industries, Government of Mysore, Bangalore.
- *6. Directorate General of Technical Development, (Automobile and Ancillary Industries Directorate), Udyog Bhavan, Maulana Azad Road, New Delhi.
- *7. Counsellor (Commercial) to the Embassy of India, 262, Koblengzer Strasse Bonn, West Germany.
- *8. Counsellor (Commercial) to the High Commission for India, India House, Aldwych, London W.C. 2.

- *9. First Secretary (Commercial) to the Embassy of India, 2107, Massachusetts Avenue, Washington-8 D.C.
- *10. The Collector of Customs, New Customs House, Bombay-1.
- *11. The Collector of Customs, Custom House, Madras-1.
- *12. The Collector of Customs, Custom House, Calcutta.
- *13. The Collector of Customs, Cochin.
- *14. The Secretary to the Government of India, Ministry of Steel & Mines, (Deptt. of Iron & Steel), New Delhi.
- *15. The Director, Central Glass & Ceramic Research Institute, P.O. Jadavpur University, Calcutta-32.
- *16. The Secretary, Council of Scientific and Industrial Research, Rafi Marg, New Delhi.
- *17. The Consulting Engineer to the Government of India, Ministry of Transport (Road Wing), Statistics Division, Jamnagar House, Shahjahan Road, New Delhi-11.
- *18. The Secretary to the Govt. of India, Ministry of Petroleum and Chemicals, New Delhi.
- †19. The Director of Industries (Planning & Research Division), Kanpur (U.P.).

G. CHIEF SECRETARIES OF STATES

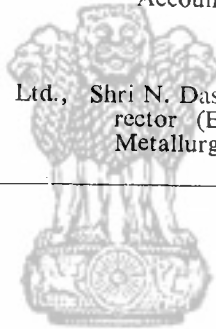
- 1. The Chief Secretary to the Government of Andhra Pradesh, Hyderabad.
- †2. The Chief Secretary to the Government of Assam, Shillong.
- 3. The Chief Secretary to the Government of Bihar, Patna.
- *4. The Chief Secretary to the Government of West Bengal, Calcutta.
- †5. The Chief Secretary to the Government of Gujarat, Ahmedabad.
- †6. The Chief Secretary to the Government of Jammu and 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, Bhubaneswar.
- †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 3.2)

Particulars of the factories visited by the Commission and its Officers

Sl. No.	Name of the factory	By whom visited	Date of visit
1.	Motor Industries Co. Ltd., Bangalore.	(i) Shri M. P. Pai, Chairman	10-2-1965
		(ii) Dr. R. Balakrishna, Member.	10-11-1964.
		(iii) Shri N. Das, Technical Director (Engineering and Metallurgy)	9-11-1964.
2.	Auto Accessories (India) Ltd., Bombay.	(i) Shri N. Das, Technical Director (Engineering and Metallurgy)	1-12-1964.
		(ii) Shri A. K. Banerji, Cost Accounts Officer	10-12-1964, 23-12-1964, 24-12-1964 and 8-1-1965.
3.	Chase Bright Steel Ltd., Bombay.	Shri N. Das, Technical Di- rector (Engineering and Metallurgy)	18-2-1965.



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APPENDIX III

(Vide paragraph 3.3)

*List of persons who attended the Commission's Public Inquiry on
25th February, 1965*

Name of the representative	Name of firm or body represented
A. PRODUCERS :	
1. Shri K. H. Martin } 2. Shri D. N. Vatcha }	Motor Industries Co. Ltd., Post Box No. 93, Bangalore-4.
3. Shri M. K. Capadia	Auto Accessories (India) Ltd., Forbes Building, Home Street, Bombay-1.
B. PRODUCERS ASSOCIATION :	
4. Shri N. Balakrishna	Association of Indian Automobile Manufacturers, Army and Navy Building, 3rd Floor, Mahatma Gan- dhi Road, Fort, Bombay-1.
C. SUPPLIERS OF RAW MATERIALS :	
5. Shri S. P. Shorewala	Hindusthan Aluminium Corpora- tion Ltd, P. O. Renukoot, Dist. Mirzapur (U.P.).
6. Shri A. K. Jajodia	Chase Bright Steel Ltd., Vaswani Mansions, Dinshaw Vachha Road, Bombay-1.
D. CONSUMERS :	
7. Shri Kenkere	Ideal Jawa (India) Pvt. Ltd., Industrial Estate, Mysore-2 (South India).
8. Shri P. C. Munot	Bajaj Auto Ltd., Chinchwad, Poona-19.
9. Shri M. H. Narurkar	Bombay Electric Supply and Trans- port Undertaking, Best House P. B. No. 192, Bombay-1.
E. IMPORTERS :	
10. Shri M. P. Poncha } 11. Shri J. Wadia }	Premier Auto Electric Ltd., 69, Tardeo Road, Bombay-34 W.B.
F. GOVERNMENT DEPARTMENTS :	
12. Shri C. V. K. Murthy Rao, Development Officer (Auto)	Directorate General of Technical Development, (Automobile and Ancillary Industries Directorate). Udyog Bhavan, New Delhi.

Name of the representative	Name of firm or body represented
13. Shri G. N. Upponi	Directorate General of Supplies & Disposals, (Dept. of Supply), National Insurance Building, Parliament Street, New Delhi.
14. Col. K. S. K. Murthy, Chief Superintendent Development, Technical Development Establishment (Vehicles) Ahmednagar.	Secretary to the Govt. of India, Ministry of Defence, New Delhi.
15. Shri M. Sachidananda Moorthy, Director, New Government Electric Factory, Bangalore.	Department of Industries and Commerce, Government of Mysore, Bangalore.
16. Shri D. S. Godbole, Joint Director of Industries, (Technical)	Directorate of Industries, Government of Maharashtra, Sachivalaya Annexe, Bombay-32.
17. Shri R. V. Lele, Scientist	Central Glass & Ceramic Research Institute, Jadavpur University, Calcutta-32.
18. Shri S. G. Rege, Appraiser	Collector of Customs, New Custom House, Bombay.
G. MISCELLANEOUS :	
19. Shri Kishu Gidwaney	} Automobile News, P. O. Box 6095, Coloba, Bombay-5.
20. Shri Hariharan	
21. Shri T. D. Bhadsavle	Bhadsavle Industries, Vidya Vihar (Kiro), Bombay-77.

APPENDIX—IV

(Vide paragraph 11.2)

Statement showing countrywise imports of automobile sparking plugs during 1963 and 1964
(January—September)

Sl. No.	Source	1963						1964 (January-September)					
		14 mm.		Other sizes		Total		14 mm.		Other sizes		Total	
		Quan- tity	Value	Quan- tity	Value	Quan- tity	Value	Quan- tity	Value	Quan- tity	Value	Quan- tity	Value
Nos.	Rs.	Nos.	Rs.	Nos.	Rs.	Nos.	Rs.	Nos.	Rs.	Nos.	Rs.		
1.	U. K.	9	120	174,487	56,391	174,496	56,511	9	307	177,600	58,888	177,609	59,195
2.	U. S. A.	1,062	1,624	10	3,715	1,012	5,339	99	418	303	3,865	402	4,283
3.	U. S. S. R.	..	..	6,012	23,285	6,012	25,285	..	..	100	174	100	174
4.	West Germany	..	..	..	..	..	..	20	105	..	40	20	145
5.	Other Countries	..	..	..	..	..	..	375	1,532	13	79	388	1,611
		1,011	1,744	180,509	85,391	181,520	87,135	503	2,362	178,016	63,046	178,519	65,408

Note:—There were no imports of sparking plugs of 18 mm. size during the above periods.

APPENDIX V

(Vide paragraph 17.2)

Statement showing reductions in selling prices of sparking plugs since the last inquiry (1963)

(Rs. per plug)

Sl. No.	Party	Selling Prices			
		MICO		Auto	Accessories
		At the last inquiry	At Present	At the last inquiry	At Present
(i)	O. E. Manufacturers . . .	1.50†	1.00†	1.50†	1.00†
(ii)	Govt. Deptts. against rate contract by D. G. S. and D.	2.50†	2.45†	2.50†	2.45†
(iii)	Premier Auto Electricals Ltd.	2.45	2.32	2.41*	2.26*
(iv)	Distributors	2.65	2.50	2.65††	2.50††
(v)	Stockists	2.85	2.70	2.85†	2.70†
(vi)	Dealers	3.10	2.95	3.10†	2.95†
(vii)	Consumers	3.50	3.35	3.50†	3.35†

*Armstrong Smith Ltd., who were till recently the principal Distributors of the company.

†F. O. R. destination.

††Net-ex-factory.