PTC. 350(N)
500

GOVERNMENT OF INDIA
TARIFF COMMISSION

REPORT ON THE CONTINUANCE OF PROTECTION TO THE ALUMINIUM INDUSTRY

BOMBAY, 1958

PRINTED IN INDIA BY THE MANAGER GOVERNMENT OF INDIA PRESS NASIK AND PUBLISHED BY THE MANAGER OF PUBLICATIONS DELHI-8

Price : Rs. 2·12 or 3sh. 6d.

PERSONNEL OF THE COMMISSION

SHRI C. RAMASUBBAN	*Chairman*
DR. S. K. MUKHERJEE, D.Sc. (LONDON)	*Member*
SHRI J. N. DUTTA	*Member*
SHRI R. S. BHALE	*Member*

SECRETARY

DR. RAMA VARMA

GOVERNMENT OF INDIA

MINISTRY OF COMMERCE & INDUSTRY

New Delhi, the 20th November 1958.

RESOLUTION

Tariffs

No. 3(5)-T.R./58.—The Tariff Commission has submitted its Report on the continuance of protection to the Aluminium Industry on the basis of an inquiry undertaken by it under Sections 11(e) and 13 of the Tariff Commission Act, 1951. Its main recommendations are :

(1) Protection to aluminium industry should be continued for a further period of two years, that is, till 31st December, 1960, and the existing rate of duty of 35 per cent. *ad valorem* should be maintained on (1) aluminium in any crude form, including ingots, bars, blocks, etc. [I.C.T. Item No. 66(1)] and (2) aluminium manufactures, namely, plates, sheets, circles, strips and foil, including foil in any form or size ordinarily used as parts of fittings of teachests [I.C.T. Item No. 66(a)].

(2) The requirements of imported raw materials by Aluminium Corporation of India, Ltd., and Indian Aluminium Co., Ltd., should be assessed on the basis of their respective revised capacities claimed by the two units.

2. Government accept recommendation (1) and the necessary legislation will be undertaken in due course.

3. Government have taken note of recommendation (2) and steps will be taken to implement it to the extent possible.

ORDER

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

S. RANGANATHAN,

Secretary to the Government of India.

CONTENTS

REPORT ON THE CONTINUANCE OF PROTECTION TO THE ALUMINIUM INDUSTRY

History

1.1. Shortly after the outbreak of World War II it was realised that a very high priority should be given to explore the possibility of producing aluminium in India. Various steps were taken by Government to assist Aluminium Corporation of India Ltd. and Indian Aluminium Company Ltd. to undertake the manufacture of aluminium in this country. Government also gave a formal assurance of protection to the industry, *vide* the late Commerce Department Resolution No. 6-T(2)/40, dated 14th December, 1940, the terms of which are reproduced below:—

> "In this Department Resolution No. 6-T/Sim/40 dated the 20th July, 1940, the Government of India announced their decision to permit the importation of alumina free of duty in order to enable the manufacture of aluminium to be started in India. The concession is to remain in force for four years or until adequate supplies of alumina made in India are available at a reasonable price, whichever may be earlier."

> "In view of the fact that the production of aluminium in this country is an urgent war necessity, the Government of India are further pleased to give an assurance to all who wish to undertake its manufacture in India that, provided their affairs are conducted on sound business lines, they will be given such measure of protection against unfair competition from outside India after the war as may be necessary to enable them to continue their existence."

1.2. The history of tariff protection to the aluminium industry upto 31st December, 1955, is given in paragraphs 1.1 to 1.5 of our Report (1955) on the industry. In a report submitted to Government in October of that year we recommended continuance of protection upto 31st December, 1958 at the existing level of duty, namely, 30 per cent. *ad valorem* plus 5 per cent. of the total duty on (i) aluminium manufactures, namely, plates, sheets, circles, strips and foil, including foil in any form or size ordinarily used as parts and fittings of tea chests [I.C.T. item No. 66(a)] and (ii) aluminium in any crude form, including ingots, bars, blocks, slabs, billets, shots and pellets [I. C. T. item No. 66(1)]. This recommendation was accepted by Government and protection to the industry was continued by the Indian Tariff (Third Amendment) Act, 1955. The rate of duty applicable to both I.C.T. items Nos. 66(a) and 66(1) referred to above was rounded to 35 per cent *ad valorem* by the Finance (No. 2) Act, 1957.

Present inquiry

2. As protection granted to the aluminium industry is due to expire on 31st December, 1958, the present inquiry was undertaken by us under Section 11(e) read with Section 13 of the Tariff Commission Act, 1951 which empowers us to inquire into and report on any further action required in relation to the

protection granted to an industry with a view to its increase, decrease, modification or abolition according to the circumstances of the case.

Scope of the inquiry

3. The existing scheme of protection applies to the articles covered by I.C.T. items Nos. 66(a) and 66(1) as stated in paragraph 1.2. It also applies to non-ferrous alloys containing more than 97 per cent. of aluminium in either of the forms mentioned in the above two I.C.T. items as stated in the proviso to I.C.T. item No. 70(1).

Method of inquiry

4.1. Questionnaires were issued to Aluminium Corporation of India Ltd. and Indian Aluminium Co. Ltd. and certain important importers. The Indian Non-ferrous Metals Manufacturers' Association, Calcutta, the All India Non-ferrous Metalware Manufactures' Association, Bombay, the Andhra Chamber of Commerce, the Southern India Chamber of Commerce and the Hindusthan Chamber of Commerce, Madras were requested to furnish memoranda embodying their views on various aspects of the industry. A detailed memorandum with particular reference to the present position of the industry and plans for its expansion was called for from the Development Wing. Collectors of Customs were requested to furnish information relating to C.I.F. prices and landed costs of latest consignments of aluminium ingots, sheets, circles, scrap, etc. The Indian Embassies at Washington, Vienna, Bonn and Paris and the Indian High Commissions at London and Ottawa were addressed for information relating to F.O.B. quotations for aluminium ingots, sheets and circles. A list of those to whom questionnaires were issued and from whom replies or memoranda were received is given in Appendix I.

4.2. Dr. S. K. Muranjan and Shri J. N. Dutta, Members of the Commission, visited the factory of Aluminium Corporation of India Ltd., Jaykaynagar (Asansol—West Bengal) on 5th August, 1958. They visited the Alumina plant of Indian Aluminium Co. Ltd., at Muri (Bihar) on 6th and the rolling mills of the Company at Belur (Calcutta) on 7th August, 1958. They also visited the factory of Venesta Ltd., Calcutta (manufacturer of aluminium foils) on 8th August, 1958. Shri B. R. Sehgal, Director (Investigations), visited the factory of Metal Rolling Works Private Ltd., Bombay on 8th August, 1958.

4.3. A public inquiry into the industry was held on 25th August, 1958. A list of persons who attended the inquiry is given in Appendix II.

Implementation of ancillary recommendations made by the Commission in its last report (1955)

5.1. We set out below the recommendations made by us in 1955 on matters other than protective tariffs and indicate the extent to which they have been implemented.

5.2. "Government may examine the feasibility of imposing a duty on the import of aluminium scrap."

It was announced in Government Resolution No. 3(3)-TB/55, dated 30th November, 1955 that this recommendation was under consideration and that suitable action would be taken in due course. Subsequently a revenue duty of 25 per cent. *ad valorem* was imposed on

aluminium scrap with effect from 3rd December, 1955 and a new item No. 66(2) was inserted in the Indian Customs Tariff by the Indian Tariff (Third Amendment) Act, 1955. Later, this duty was remitted in full by the Ministry of Finance (Revenue Division) Notification No. 56-Customs, dated 10th July, 1956. At the instance of Government, the question of duty on aluminium scrap was examined by us afresh in 1957 and in accordance with our recommendation a revenue duty of 15 per cent. *ad valorem* was imposed by Government on aluminium scrap, *vide* Ministry of Finance (Department of Revenue), Notification No. 290-Customs, dated 28th November, 1957.

5.3. "In the interest of our export trade, Government may take steps to ensure that only quality products of aluminium ware are allowed for export."

This recommendation has been implemented. Export of wrought aluminium utensils which do not bear the "standard mark" prescribed under the Indian Standards Institution (Certification Marks) Act, 1952 has been prohibited by the Ministry of Finance (Revenue Division) Notification No. 26-Customs, dated 10th May, 1956.

5.4. "Every plan or scheme envisaging increasing use of aluminium in industry should be carefully examined by Government and every application for waiver of duty or reduction in its quantum should likewise be carefully weighed to ensure that while such a concession results in the objective of increased consumption of the indigenous product in the long run, it does not, in the interim period, prejudice the development of the metal industry."

It was announced in the Government Resolution of 30th November, 1955 that this recommendation had been accepted and that steps would be taken to implement it as far as possible. Subsequently in our report (1957) on the continuance of protection to the Bare Copper Conductors and A.C.S.R. Industry we recommended that both electrolytic aluminium ingots/bars and rods used in the manufacture of A.C.S.R. should be subject to a uniform concessional duty of 15 per cent. *ad valorem* instead of the prevailing concessional rates of 15 per cent. *ad valorem* on electrolytic aluminium ingots/bars and of 17½ per cent. *ad valorem* on rods. We also recommended that similar concession should be extended to manufacturers of all-aluminium conductors (AAC). Government announced in their Resolution No. 3(5)TR/57, dated 2nd December, 1957 that they had taken note of these recommendations and would take suitable action in due course. We understand that the matter is under consideration.

Structure of the industry and its present position

6.1. The aluminium industry in India, as it is organised at present, can be broadly divided into two important sectors, namely, (i) manufacture of unwrought metal (virgin and secondary); and (ii) semi-manufactures and manufactures of aluminium (products of rolling mills, rod mills and extrusion presses; manufacture of aluminium paste, electrical conductors, domestic utensils, etc.). A large

section of (ii) above, namely, products of rod mills, extrusion presses, etc., is outside the scope of the present inquiry. The organisational set-up of such sections of the industry as are covered by I.C.T. items Nos. 66(1) and 66(a) is briefly stated below:—

6.2. *Manufacture of unwrought (primary) metal.*—There are two companies—Aluminium Corporation of India Limited and Indian Aluminium Company Limited—which are engaged in the manufacture of primary metal. Both have installed the necessary equipment for manufacture of aluminium metal from bauxite and of certain types of its alloys. In addition, they have set up rolling mills for producing a fairly wide range of semi-manufactures.

6.2.1. *Aluminium Corporation of India Ltd.*—The Corporation has established a composite and integrated factory with a power house, an aluminium plant, a smelter, a petroleum coke calcining plant and rolling mills at Jaykaynagar (Asansol). Its colliery is also situated in the same compound. The Corporation obtains its bauxite from deposits near Lohardaga in the Ranchi District of Bihar at a distance of about 140 miles from Asansol. Bauxite from the mines is transported by trucks over a distance of about 20 miles to Lohardaga railway station and from there by railway to Asansol. Subsequent to the last inquiry the Corporation has added a few evaporators at a cost of about Rs. 3 to 4 lakhs to improve the operation of its plant. It has also developed the manufacture of foundry alloys to meet the requirements of the automobile industry. Its annual capacity on three-shift basis and production since 1955 are stated below:—

(Figures in tons)

	Capacity as stated in the Commission's last report (1955)	Licensed capacity as intimated by the Development Wing	Present capacity as reported by the Corporation	PRODUCTION			
				1955	1956	1957	1958 (Jan. to March)
Alumina .	5,000	. .	4,400	3,999	4,435	4,006	1,503
Aluminium ingots.	2,200	2,400	2,200	2,341	2,502	2,263	623

The representative of the Corporation stated that experience has indicated that its alumina capacity should be placed at the lower figure of 4,400 tons per annum and that notwithstanding the higher production of ingots achieved in the past as a result of overloading the power plant, its annual capacity for aluminium ingots should be rated at 2,200 tons. We have accepted the revised figures for the purpose of this inquiry.

6.2.2. *Indian Aluminium Co. Ltd.*—Unlike the Corporation, Indian Aluminium Co. has its works in three different places in the country. Its alumina factory with a thermal power station is situated at Muri

(near Ranchi in Bihar), its aluminium smelter is at Alupuram in Kerala while its rolling mills are located at Belur near Calcutta. The Company obtains its bauxite from deposits which are within four miles of Lohardaga railway station. Bauxite from the mines is transported by an aerial ropeway to Lohardaga and from there to Muri by rail over a distance of about 78 miles. Subsequent to the last inquiry the Company has increased the capacity of its alumina plant to 18,000 tons at a cost of about Rs. 55 lakhs. It has also plans to expand it further to 31,000 tons per annum to meet the entire requirements of its smelter at Alupuram and the new smelter under erection at Hirakud. The Company has also been producing conductor grade aluminium which is used in the manufacture of A.C.S.R. and all-aluminium conductors (AAC). Its annual capacity on three shifts basis and production since 1955 are given below : -

(Figures in tons

	Capacity as stated in the Commission's last report (1955).	Licensed capacity as intimated by the Development Wing	Present capacity as reported by the Company	PRODUCTION			
				1955	1956	1957	1958 (Jan. to March)
Alumina	10,000	..	18,000 as on 1st August, 1958).	10,087	13,405	14,060	3,620
Aluminium	5,000	5,000	5,500	*4,856	*3,967	*5,465	*1,374

*Out of the total quantities of ingots produced, the output of conductor grade aluminium is reported to have been as follows: -

	Tons.
1955 (From September to December, 1955)	205
1956	1,182
1957	2,338
1958 (January-March)	495

The Company was advised to get its manufacturing licence amended so as to indicate the capacity of its Allupuram smelter at 5,500 tons a year.

6.2.3. *Future expansion of ingot capacity.*

6.2.3.1. *Expansion of existing units*– The Corporation received a licence in 1954 to increase its ingot capacity to 4,800 tons, but could not make use of it owing to financial and other difficulties. We are informed that Government have recently approved in principle a scheme which will have the effect of raising the Corporation's ingot capacity to 7,200 tons a year. The representative of the Corporation informed us that it has been able to arrange for deferred payments and also hopes

that additional power will become available from the Durgpore Project by June 1960. This expansion is unlikely to materialise within the next two years, that is, before the end of 1960. As regards Indian Aluminium Co., mention was made in the last report to the effect that it had planned to instal in the Hirakud area (Orissa) an aluminium smelter with an annual ingot capacity of 10,000 tons capable of expansion later to 20,000 tons. We are now informed that the Hirakud plant with an initial capacity of 10,000 tons a year is expected to commence production by the beginning of 1959. The Company has also applied for a licence to expand the capacity of this plant to 20,000 tons a year and we understand that the matter is under consideration.

6.2.3.2. *New units.*—In 1955 the Government of India appointed a committee with Dr. A. Nagaraja Rao, Chief Industrial Adviser and Joint Secretary, Ministry of Commerce and Industry, as Chairman and Shri C. J. Shah, Development Officer (Metals) as Secretary, to go into the question of development of aluminium industry in the country to cope with future requirements. In a report submitted to Government in September 1956, the Committee recommended the establishment of two new aluminium plants—one at Rihand in Uttar Pradesh and the other at Mettur in Salem District in Madras—each with an installed capacity of 10,000 tons per annum with provisions for expansion further to 20,000 tons per annum in each case. Originally the idea was that these two plants would be established in the public sector under the auspices of the National Industrial Development Corporation but subsequently it was decided to leave them to private entrepreneurs if they were willing to undertake the manufacture of aluminium. We are informed that Birla (Gwalior) Private Ltd., has applied to Government for a licence to instal an aluminium smelter at Rihand with an installed capacity of 10,000 tons per annum in technical collaboration with Kaiser Aluminium and Chemical Corporation of U.S.A. and that this application is under consideration. Certain industrialists are reported to be trying to interest overseas aluminium manufacturers to set up, in collaboration with Indian capital, an aluminium plant at Mettur, but no concrete proposals have yet been received by Government.

6.2.3.3. The position, therefore, appears to be that by the end of 1960, the only additional ingot capacity that will be established in the country is the Hirakud Smelter of Indian Aluminium Co., with an annual capacity of 10,000 tons. The total ingot capacity that will be available in the country in 1960 will be—

	Tons
1. Aluminium Corporation of India Ltd. at Jaykaynagar	2,200
2. Indian Aluminium Co. Ltd.	
(*i*) Alupuram Smelter	5,500
(*ii*) Hirakud Smelter	10,000
TOTAL .	17,700

6.3. *Secondary metals.*—In our last report (1955) we had estimated that the annual arisings of aluminium scrap (other than process scraps) were of the order of 3,000 tons. The consensus of opinion at the public inquiry was that the annual arisings at present were about 5,000 tons and that this scrap is used along with virgin metal and imported scrap in the production of durable articles or alloys. We have accepted the following figures for scrap arisings during the last three years :—

	Tons.
1955	3,000
1956	4,000
1957	5,000

6.4. *Semi-manufactures and manufactures of aluminium* :

6.4.1. The scope of the present inquiry covers only the following rolled products of aluminium (including alloys containing more than 97 per cent. of aluminium), namely, plates, sheets, circles, strips and foil including foil in any form or size ordinarily used as parts and fittings of tea chests. Both the manufacturers of virgin metal have their own rolling mills. The rolling mills of the Corporation are located at its Jaykaynagar Works while those of the Company are situated at Belur. Their annual capacity on three-shift basis and production since 1955 have been as follows :—

Name of the Unit	Capacity as stated in the Commission's last report (1955)	Licensed capacity as intimated by Development Wing.	Present capacity as reported by the units	PRODUCTION			
				1955	1956	1957	1958 Jan.-March
Aluminium Corporation of India Ltd.	2,400	2,500	2,000	1,765	2,090	1,786	552
Indian Aluminium Company Ltd.	6,000	7,000	7,300	6,010	6,636	7,283	1,816
	8,400	9,500	9,300	7,775	8,726	9,069	2,368

The representative of the Corporation stated that owing to shifts in demands from circles to sheets and from 2s sheets to 3s sheets, its capacity should be fixed at the lower figure of 2,000 tons a year Indian Aluminium Company claimed, on the other hand, that actual operation of its plant at Belur has indicated that its annual capacity should be rated at the higher figure of 7,300 tons instead of the licensed figure of 7,000 tons. There was some discussion on this question and it was agreed that the claims of both the units should be accepted and that their requirements of imported raw materials should be assessed on the basis of their respective revised capacities. We recommend that further necessary action in this behalf be taken by Government.

6.4.2. Subsequent to the last inquiry both the units have taken steps to diversify their production. The Corporation has developed the production of corrugated sheets, 3s sheets for industrial uses, etc. Indian Aluminium Company has, apart from diversifying the output of aluminium alloy products, expanded its production of coils and foil stocks which were produced on an experimental scale at the time of the last inquiry. It has also started producing grease-free plain aluminium sheets for the manufacture of printed containers.

6.4.3. In addition to the rolling mills of the above two primary producers, there are six other units which are working on an organised basis with a reasonable scale of operations. They are equipped for rolling flat products such as plates, sheets, strips and circle in commercial aluminium (including aluminium alloys) upto a width of 36" and thinckness upto 30 gauges. Devidayal Metal Industries Private Ltd. claims to be producing foils upto 16". Most of these units use the same equipment for rolling copper, brass and aluminium products depending on market demand and availability of raw materials. Their annual capacity on three-shift basis and production since 1955 are given below:—

(In Tons)

Name of the unit	Annual installed capacity.	PRODUCTION			
		1955	1956	1957	1958 (Jan. to March)
1. Metal Rolling Works Private Ltd., Bombay	2,500	1,490	928	1,041	385
2. Devidayal Metal Industries (P) Ltd., Bombay.	1,800	534	446	434	128
3. Popular Metal Works & Rolling Mills, Bombay.	600	187	223	2233	127
4. Rashtriya Metal Industries Pvt. Ltd., Bombay.	1,200	57	4	Nil	Nil
5. Kamani Metals & Alloys Ltd., Bombay.	1,800	Nil	Nil	Nil	Nil
6. Hindustan Metal Refinery & Rolling Mills, Madras.	600	247	490	458	98
	8,500	2,515	2,091	2,166	738

Thus the present rolling capacity including that of the two primary producers is 17,800 tons per annum, which is made up of 8,000/9,000 tons of industrial sheets and the rest in circles.

6.4.4. Apart from the rolling mills mentioned above for the production of flat products, there is one unit—Venesta Ltd., Calcutta—which is engaged in the manufacture of aluminium foils (plain, interleaved with or gum lined to issue paper, coloured, lacquered and

printed) used in labels, packing of cigarettes, confectionery, etc., and as linings and fittings of tea chests. It also produces all paper-backed aluminium foils, both embossed and decorated. Its present capacity on three-shift working is 1,600 tons per annum and its production was 1,316 tons in 1955, 1,139 tons in 1956, 1,354 tons in 1957 and 379 tons during the first quarter of 1958.

6.4.5. *Future expansion of rolling capacity.*— We are informed that the Corporation has been advised that provided it is able to make arrangements for meeting its foreign exchange requirements in a manner satisfactory to Government, it would be permitted to increase its capacity for sheets/circles to 3,900 tons a year and also to go in for the production of new articles such as aluminium foils (annual capacity 480 tons) and aluminium extrusions (annual capacity 960 tons). These capacities are not likely to be achieved before 1962. Indian Aluminium Company has equipments to roll aluminium foil stock coils each weighing 340 lbs. only which is not very suitable for the high speed rolling mills of Venesta Ltd., which require longer coils weighing 1,500 lbs. each. It has plans to instal new equipments to produce heavier foil stock coils and also to expand its capacity. Venesta has been licensed to increase its capacity to 2,000 tons a year but this expansion is unlikely to materialise before 1961. In the circumstances, it seems to us that no expansion of rolling capacity for aluminium products is likely to materialise before the end of 1960.

Domestic demand

7.1. In our last report we had estimated the demand for aluminium in 1955 at 20,000 tons and observed that the demand in the succeeding years could be expected to increase at the rate of 5,000 tons a year so that at the end of the next three years it would be of the order of 35,000 tons a year. The break-down of the off-take by the various sections of the domestic market was then envisaged as under:—

	Tons
Utensils	10,000
A.C.S.R. & A.A.C.	14,000
Transportation	5,000
Engineering	1,000
Foils, canning and packing of food, etc. industries	3,000
Building construction	1,000
Others	1,000
TOTAL	35,000

In the "Programmes of Industrial Development, 1956-61" the Planning Commission has estimated that about 30,000 tons of aluminium would represent our minimum requirements by 1960-61 and that their break-down would be as follows:—

	Tons.
1. A.C.S.R. Cables and A.A.C.	13,000
2. Utensils & Hollow-wares (Primary metal only)	8,000
3. Foil stock	2,500
4. Industrial sheets for coaches, wagons, bus bodies, etc.	3,500
5. Powder and Paste	500
6. Extrusions	500
7. Castings	500
8. Buildings & construction industry	1,500
9. Collapsible tubes and containers	500
TOTAL	30,000

The Planning Commission has further observed that the demand for A.C.S.R. conductors might increase to 16,000 tons and that in keeping with modern trends, the demand for aluminium was also likely to expand especially for the construction of boats, barges, aluminium structurals, bodies for buses and railway coaches.

7.2. In connection with the present investigation we have received estimates of demand from various sources. The Development Wing has estimated the demand for aluminium in 1958 to vary between 30,000 and 33,000 tons and expects that it will increase by 5,000 tons per annum in future so that by the end of 1960-51, the demand would range between 40,000 and 44,000 tons. The estimates furnished by the two primary producers place the annual demand for 1958 between 30,000 and 34,800 tons and that for 1960-61 between 37,200 and 45,500 tons. The break-down of various estimates is given below :

(In tons)

	DEMAND for 1958			DEMAND for 1961		
	Development Wing	Aluminium Corporation	Indian Aluminium Company	Development Wing	Aluminium Corporation	Indian Aluminium Company
1. Utensils (including household and Commercial supplies).	8,000	8,000	10,500	Not supplied.	5,000	10,500
2. A. C. R. S. & A. A. C.	12/15,000	11,000	15,000	Ditto	15,000	20,000
3. Transportation	5,000	4,000	4,000	Ditto	7,000	6,000
4. Building and construction.	1,000	2,500	1,000	Ditto	1,000	2,000
5. Food & Farming	500	..	300	Ditto	..	1,000
6. Canning and Packing	2,000	2,500	2,500	Ditto	3,200	3,500
7. Other industries	1,500	2,000	1,500	Ditto	3,000	2,500
TOTAL	30/33,000	30,000	34,800	40/44,000	37,200	45,500

7.3. The following statement shows the availability of aluminium since 1955 on the basis of (a) indigenous production of ingots, (b) domestic scrap arisings (other than process scrap) converted into metal after allowing for a melting loss of 25 per cent. and (c) imports of aluminium ingots, scraps, sheets, circles, etc.

(Figures in tons)

Year	Indigenous production of ingots.	Domestic arisings of scrap converted into metal after allowing for a melting loss of 25 per cent.	Imports of aluminium ingots, sheets, circles etc.	Imports of scrap	Total
1955	7,197	2,250	16,165	2,402	28,014
1956	6,469	3,000	14,010	877	24,356
1957	7,728	3,750	21,391	1,815	34,684

The consensus of opinion was that there was no accumulation of stocks at the end of 1957 and that the consumption of aluminium during that year could be placed at 34,000 tons. As regards 1958 it was generally agreed that owing to several restrictive factors such as non-availability of raw material, high prices etc. the consumption is not expected to go up very much beyond the 1957 level and may be placed at 35,000 tons. As regards the future, we are informed that the manufacture of aluminium utensils which accounted for the major part of the demand for aluminium in the past, has been declining progressively. Both the producers of virgin metal have also stated that the demand for circles, from which domestic utensils are manufactured, had gone down. According to a sample survey carried out by one of the producers the total rolling capacity of aluminium by small units, which are not organised and are widely scattered over the country, is of the order of 15,000 tons but many of them are not in production now on account of the high price of the metal and scraps and the decline in popularity of aluminium utensils. Decline in demand for utensils will be more than offset by the increased requirements of aluminium for industrial uses in the coming years. According to present indications there is a large potential for increased off-take in several industries — particularly in the manufacture of A. C. S. R. and A. A. C. for use in electrical industries, aluminium sheets for transport industries, aluminium structurals for engineering and building industries and aluminium foils for use in packings, etc. We have given the matter our careful consideration and are of the view that the demand for aluminium in 1958 could be placed at 35,000 tons and that it may be expected to go up to 44,000 tons by 1961.

7.4. It will be seen from paragraphs 6.2.1., 6.2.2. and 6.2.3. that our present installed capacity for production of aluminium metal is 7,700 tons per annum and that even after the installation of the new smelter at Hirakud, the installed capacity will rise to only 17,700 tons of metal per annum. This will leave a gap of 20,000 tons at present which will increase to about 27,000 tons in 1961. This gap has to be met by imports. Latest c.i.f. price of aluminium ingots being Rs. 2,400 per ton, imports on the above scale would involve a draft on foreign exchange of the order of Rs. 5 to 7 crores a year. In view of our strained foreign exchange position, earnest efforts should be made to reduce our dependence on imports as far as possible. The principal raw material of the industry is bauxite, and there is no dearth of this mineral in the country. One of the obstacles to the rapid development of aluminium ingot capacity is the lack of cheap power. The power requirements of an integrated aluminium factory with an annual production of 10,000 tons are estimated to be about 26,000 KW for one ton of aluminium. A variation in the cost of electric power by one naya paisa per KW gives rise to a variation in the price of aluminium metal by about Rs. 260 per ton. We have referred in paragraphs 6.2.3.1. and 6.2.3.2. to the schemes of expansion of Aluminium Corporation and Indian Aluminium Company and to the proposed establishment of a new Aluminium factory at Rihand in U. P. Considering the urgency of the matter, we hope that Government will take steps to ensure that negotiations for the supply of power or its charges do not hold up the early establishment of these capacities.

7.5. We should also like to mention in this connection that the country's demand for flat products (other than circles) is estimated to go up to about 15,000 tons by the end of 1961, and that the bulk of it will be in the form of industrial sheets and strips. Having regard to the fact that there is idle capacity in the country's copper and brass rolling industry which could be switched over, in times of need, to the production of aluminium sheets, it may appear that there is no need to establish any additional capacity for the production of aluminium sheets and circles. This, however, overlooks the fact that the manufacture of certain types of industrial sheets and strips of aluminium demands precision workmanship of a high order. Aluminium sheets and strips of thinner gauges cannot also be rolled in the existing mills. In the circumstances it seems to us that early consideration should be given by Government to establish some additional capacity for rolling, say, 5,000/6,000 tons for aluminium a year to produce the types of plates, sheets and strips which are not produced in the country at present and are imported.

Raw materials

8. The principal raw materials required for the manufacture of aluminium ingots are bauxite, caustic soda, cryolite, petroleum coke, aluminium fluoride, and fluorspar Of these bauxite is the main raw material which, as stated in paragraph 7.4. is available in abundance in various parts of the country. The most important deposits are found in Ranchi and Palamau districts of Bihar, Amarkantak and Bilaspur districts of

Madhya Pradesh. Belgaum district of Bombay and Shevaroy Hills in Madras. Of the other raw materials, cryolite, aluminium fluoride and fluorspar of the grades required by the industry are not manufactured or found in India and have, therefore, to be imported. Though petroleum coke and caustic soda are produced in the country, some quantities are required to be imported as indigenous production is not sufficient to cover the entire domestic demand.

I. S. I. Specifications

9.1. The Indian Standards Institution has laid down seventeen specifications for aluminium and its products of which the following nine relate to articles covered by I. C. T. items Nos. 66(a) and 66(1):—

1. IS :734-1956 . . .	Specification for wrought aluminium and aluminium alloys, Forgings (For General Engineering purposes).
2. IS : 735-1956 . . .	Specification for wrought aluminium and aluminium alloys. Forging Stock (For General Engineering purposes).
3. IS : 617-1955 . . .	Specification for aluminium and aluminium alloy ingots and castings for General Engineering purposes (Tentative).
4. IS : 733-1956 . . .	Specification for wrought aluminium and aluminium alloys, bars, rods and sections (For General Engineering purposes).
5. IS : 736-1956 . . .	Specification for wrought aluminium and aluminium alloys, plate (For General Engineering purposes).
6. IS : 737-1955 . . .	Specification for wrought aluminium and aluminium alloys, sheets and strip (For general Engineering purposes).
7. IS : 21-1953 . . .	Specification for wrought aluminium for utensils.
8. IS : 22-1950 . . .	Specification for 98 per cent aluminium notched bars and ingots for remelting purposes.
9. IS : 23-1950 . . .	Specification for 99 per cent. aluminium notched bars and ingots for remelting for aircraft purposes

9.2. *Certification Marks.*—Aluminium Corporation of India holds a licence to use I. S. I. certification marks on wrought aluminium and aluminium alloys, sheets and strips (for General Engineering purposes) (IS-737-1955). It has not applied for a licence to use the certification mark for aluminium sheets and circles intended for the manufacture of utensils (IS:21-1953). Metal Rolling Works Private Ltd., holds licences for the use of I. S. I. certification mark on aluminium sheets, strips and circles intended for the manufacture of utensils. Devidayal Metal Industries Private Ltd., and Rashtriya Metal Industries Private Ltd., both of Bombay, hold licences for use of I.S.I. certification mark on aluminium utensils as well as aluminium sheets, strips and circles intended for use in utensils.

Quality of indigenous products

10. Both the primary producers and the re-rollers in the organised sector have claimed that the quality of indigenous aluminium ingots conforms to I.S.I. specifications and compares favourably with the imported material. They also claim that the quality of their flat rolled

products is satisfactory. The Development Wing has stated that it has received no complaints about the quality of indigenous products. The general testimony furnished in the written statements and at the public inquiry was that the quality of such products was satisfactory. But the opinion regarding the quality of the products of small fabricators in the unorganised sector who do not operate under a licence under the Industries (Development and Regulation) Act, 1951 was not complimentary. These fabricators use scrap as their raw material and the view expressed was that their products are generally unsatisfactory and do not conform to the specifications prescribed. These products are, however, cheaper and are mostly used in the manufacture of utensils. The use of sub-standard products in utensils constitutes a threat to the health of the consumer. By banning the export of wrought aluminium utensils which do not bear I.S.I. certification mark, we have safeguarded the interests of our overseas trade. Nothing has, however, been done to protect domestic users. In our last report we had suggested that the utensils fabricators themselves would do well to organise the trade and evolve methods to expose the low quality products but apparently little has been done. In 1957 we again drew Government's attention to the low quality of utensils produced and sold by small manufacturers. The representatives of the organised sector of the industry stated at the public inquiry that sale of standard quality circles has gone down as a result of increased competition from cheaper and low quality products manufactured by small utensil makers. This is not satisfactory and we suggest that State Governments should exercise stricter control over utensil manufacturers in their respective areas and ensure that they use the right type of raw materials.

Import Control Policy and imports

11.1. *Import control policy.*—The import control policy followed from time to time since July-December, 1955 in respect of aluminium and its semi-manufactures is stated below:—

11.2. *Aluminium in any crude form including ingots, bars, blocks, slabs, billets, shots and pellets:*

11.2.1. For the licensing period July-December, 1955, licences to established importers were granted to the extent of 100 per cent. of one-half of the best year's imports from general and soft currency areas. Provision was also made for the issue of licences to actual users borne on the list of the Development Wing. Besides, supplementary licences for aluminium ingots, bars, etc., were given to established importers and actual users requiring those materials for re-rolling A.C.S.R. conductors provided they had entered into firm commitments for obtaining supplies against licences already issued to them.

11.2.2. During the subsequent three licensing periods *i.e.*, January-June, 1956, July-December, 1956 and January-June, 1957, the same policy was continued except that the provision made for granting supplementary licences to established importers and actual users for importing aluminium ingots, bars, etc., for re-rolling A.C.S.R. conductors was withdrawn during the period January-June, 1957. For the

period July-September, 1957 no licences were issued. During the licensing period October 1957 to March 1958, the quota for established importers was fixed at 10% of one-half of best year's imports from soft and general currency areas. During the licensing period April-September, 1958 the quota for established importers was nil and licences were issued to actual users in consultation with the Development Wing. In addition, Government have arranged during 1958 the import of 10,000 tons of aluminium ingots from Canada under the Colombo Plan for distribution amongst actual users as follows:—

	Tons
A.C.S.R. manufacturers	8,000
Sheet rollers	2,000
	10,000

11.3. *Aluminium circles, sheets, strips and other manufactures not otherwise specified (other than aluminium electrodes).*

11.3.1. During the licensing period July-December, 1955, established importers were granted licences upto 75 per cent. of one-half of best year's imports and applications from actual users for aluminium sheets were considered *ad hoc* in consultation with the Development Wing. It was further provided that (a) not more than 15 per cent. of the face value of the licence or Rs. 500, whichever was higher, could be utilised for the import of plates (all types), sheets upto and including 30 SWG thick, strips (flats or coiled) upto and including 30 SWG (b) not more than 40 per cent. of the face value of the licence or Rs. 500, whichever was higher, could be utilised for the import of aluminium other than anodised aluminium, expanded metal, pipes, tubes, rods, extruded sections, sheets thinner than 30 SWG, strips (flat or coiled) thinner than 30 SWG and prefabricated aluminium houses. Licences granted under the above heading were not valid for the import of aluminium circles, aluminium collapsible tubes (empty), aluminium cap seals and aluminium R.O. and pilfer-proof cap seals. Applications from actual users were, however, considered by ports on an *ad hoc* basis for aluminium collapsible cap seals and aluminium R. O. and pilfer-proof cap seals.

11.3.2. The above policy continued during the licensing periods January-June, 1956 and July-December, 1956.

11.3.3. During the licensing period January-June, 1957, the established importers' quota was reduced to 60 per cent. and other conditions remained the same as for the previous licensing period except that the provision made for *ad hoc* grant of licences for aluminium sheets to actual users was withdrawn. A new provision was made to the effect that applications from actual users for import of "special lacquered tubes" would be considered *ad hoc* in consultation with the Development Wing. During the period July-September, 1957, no licences were, however, issued.

11.3.4. For the period October 1957 to March 1958 the quota for established importers was further reduced to 7½ per cent. Licences were valid for the import of (i) sheets and strips thinner than 30 SWG (ii) pipes and tubes upto and including 2" internal bore (iii) extruded sections (iv) aluminium wire rods having a purity of 99·5 per cent. or more (for the manufacture of electrical conductors) (v) aluminium electrodes and (vi) anodised expanded metal (import of this item would, however, be permitted only upto 10 per cent. of the face value of licences issued). For the licensing period April-September, 1958, no provision was made for the issue of licences to established importers but applications from actual users for imports of (i) sheets and strip thinner than 30 SWG (ii) pipes and tubes 3" outside diameter and above (iii) extruded sections (iv) aluminium wire rods having a purity of 99·5 per cent. or more (for the manufacture of electrical conductors) and (v) aluminium electrodes were considered *ad hoc*.

11.4. *Aluminium alloy items (other than those used in aircraft construction) containing not more than 97 per cent. of aluminium in the form of plates, sheets, circles, strips, rods, bars, tubes, sections, wires and rivets:*

During the period July-December, 1955, quota licences to established importers were issued on the basis of 50 per cent. of one-half of best year's imports from general and soft currency areas. During the licensing periods January-June, 1956, July-December, 1956 and January-June, 1957 the policy remained unchanged. For the period July-September, 1957, no licences were issued. During the period October 1957 to March 1958 established importers' quota was fixed at 20 per cent. *each* from general and soft currency areas. The same policy continued for the licensing period April-September, 1958.

11.5. *Imports.*

11.5.1. Imports of aluminium and its manufactures during 1955 and 1956 as recorded in the published statistics of the Director General of Commercial Intelligence and Statistics were as follows:—

	1955		1956	
	Quantity	Value	Quantity	Value
	Tons.	Rs.	Tons.	Rs.
Ingots, blocks, bars, etc.	5,565·95	1,40,45,463	2,818·00	79,47,774
Circles	352·40	11,24,809	954·65	21,25,161
Sheets	638·15	23,09,021	676·10	28,39,744
Tubes	72·50	6,39,862	76·95	5,99,320
Other manufactures (N.E.S.)	9,535·65	2,95,74,657	9,484·70	3,61,71,376
TOTAL	16,164·65	4,74,93,812	14,010·40	4,96,83,375

11.5.2. Since 1st January, 1957, imports are recorded in greater detail in the 'Monthly Statistics of Foreign Trade of India'. Imports for the year 1957 and January-June, 1958 are given below:—

	1957		1958 (January-June)	
	Quantity	Value	Quantity	Value
	Tons	Rs.	Tons	Rs.
I. Aluminium and aluminium alloys unwrought—				
(*i*) Aluminium base alloy .	8.55	82,857	0.35	2,849
(*ii*) Aluminium ingots . .	5,710.40	1,65,99,272	3,031.85	79,23,051
(*iii*) Others	37.60	35,342	0.05	819
TOTAL .	5,756.55	1,67,17,471	3,032.25	79,26,719
II. Aluminium and aluminium alloys worked bars, rods, plates, sheets, wire, pipes, tubes, castings and forgings—				
(*i*) Bare aluminium wire solid hard drawn.	22.75	1,35,174	0.65	3,028
(*ii*) Bars and rods .	11,615.50	4,33,66,397	3,746.75	1,31,59,371
(*iii*) Circles	1.25	84,558	..	..
(*iv*) Aluminium foil for tea chest lining	20.05	1,41,186	520.00	20,15,423
(*v*) Foil and leaf excluding tea-chest lining.	627.25	45,58,985	65.50	4,45,323
(*vi*) Pipes and tubes . .	140.25	11,12,658	10.10	96,629
(*vii*) Powder	131.95	5,63,857	20.20	1,01,717
(*viii*) Sheets, plates and strips .	1,849.00	87,35,212	472.95	19,93,540
(*ix*) Wire NES . . .	553.00	19,09,068	14.50	68,510
(*x*) Others	673.50	27,53,167	251.75	10,65,768
TOTAL .	15,634.50	6,33,60,262	5,102.40	1,89,49,309
GRAND TOTAL (I & II).	21,391.05	8,00,77,733	8,134.65	2,68,76,028

Existing rates of duty

12. Relevant extracts from the First Schedule to the Indian Tariff Act, 1934 relating to aluminium and aluminium manufactures are given 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 rates of duty
				The United Kingdom.	A British Colony	Burma	
66	Aluminium manufactures, the following, namely:						
	(*a*) Plates, sheets, circles, strips and foil, including in any form or size ordinarily used as parts and fittings of tea-chests;	Protective	35 per cent *ad valorem*.	..	..	..	December, 31st 1958.
66(1)	Aluminium in any crude form, including ingots, bars, blocks, slabs, billets, shots and pellets.	Protective	35 per cent *ad valorem*.	..	..	..	December, 31st 1958.

Costs of production and estimated fair ex-works prices of indigenous aluminium ingots and sheets and circles

13.1. It was represented to us that as significant changes are taking place in the structure of the industry which are likely to affect materially the cost of production, the present inquiry may be limited to the determination of the adequacy or otherwise of the existing scheme of protection. We, therefore, did not think it necessary to depute our Cost Accounts Officer to make an on-the-spot investigation of the costs of the units. We, however, called for the cost data from the units which were scrutinised by our Senior Cost Accounts Officer. The data submitted by the Corporation were for the year ended 31st March, 1958 and those by the Company, for the year ended 31st December, 1957. The statements showing the assessment of actual costs of production of aluminium ingots, sheets and circles by the two unit during the relevant period were discussed with their representatives and we give below, in broad categories, the data accepted by us. As regards the future, we came to the conclusion that on the basis of the material available it would not be possible to make a fair estimate of the future cost of production at present. We propose, therefore, to hold a fresh inquiry into this industry in 1960.

13.2. *Aluminium Corporation of India Ltd.*

13.2.1. *Alumina.*—The following statement shows the figures relative to (a) the estimate of cost of production in 1956 as given in our 1955 report, and (b) the actual cost of production for 1957-58.

	Commission's estimate for 1956	Actuals for 1957-58
Production of alumina calcined (tons)	4,356	4,526.60
	Rs. per ton	Rs. per ton
(*i*) Raw materials	164.45	176.06
(*ii*) Power and fuel	81.90	95.04
(*iii*) Labour	36.54	36.53
(*iv*) Repairs and maintenance and consumable stores	37.61	64.66
(*v*) Establishment and overheads less credits	41.97	51.18
Total cost without depreciation	362.47	423.47

There has been an appreciable rise in the costs of raw materials, power and fuel due mainly to the higher prices of caustic soda and coal. Mining costs of coal have gone up on account of operations being carried on deeper. More repairs and maintenance were necessary on account of the age of the plant (which was installed in 1941-42) and hence the increased expenditure under this head.

13.2.2. *Ingot.*—We give below a breakdown of the estimate of cost of production in 1956 given in our 1955 report and the actual cost in 1957-58 :—

	Commission's estimate for 1956	Actuals for 1957-58
Production of ingots (tons)	2,200	2,310.43
	Rs. per ton	Rs. per ton
(*i*) Raw materials	1,035.44	1,122.73
(*ii*) Power and fuel	476.15	645.11
(*iii*) Labour	77.68	84.23
(*iv*) Repairs and maintenance and consumable stores	80.75	82.64
(*v*) Pot lining expenses	49.04	76.28
(*vi*) Establishment and other overheads	78.71	72.77
(*vii*) Royalty	40.00	6.68
(*viii*) Head office expenses	82.91	112.17
Total cost without depreciation	1,920.68	2,202.61

The increases under "Raw materials" and "Power and Fuel" were caused by the higher prices of raw materials and the higher cost of

generation of power at the Corporation's thermal station. The increase of about Rs. 27 per ton under 'Pot Lining' expenses was stated to have been due to the higher cost of lining materials.

13.2.3. *Sheets and circles.*—In the absence of adequate records, the cost of production of sheets and circles was furnished at a flat rate without regard to sizes and gauges. The cost was split into two processes, namely, re-melting and rolling. The rolled product during 1957-58 amounted to 1816·33 tons. The following table shows the breakdown of the average cost of rolling sheets and circles:—

	Commission's estimate for 1956		Actuals for 1957-58	
Production (tons)	3,000		1,816.33	
	(Rs. per ton)		(Rs. per ton)	
Items	Sheets	Circles	Sheets	Circles
Cost of metal	2,922.13	2,922.13	3,119.17	3,119.17
Melt loss	29.22	29.22	40.74	40.74
Conversion cost				
(*i*) Re-melting	81.00	100.87	130.88	163.60
(*ii*) Rolling	250.96	250.96	439.79	439.79
(*iii*) Packing	23.00	23.00	140.00	35.00
Total cost without depreciation for Rolling Mills.	3,306.31	3,326.18	3,870.58	3,798.30

It was explained that the higher cost of rolling during 1957-58 was due to lower output and increased cost of power and fuel. The cost of packing of sheets went up on account of expensive packing required for alloy sheets.

13.2.4. *Profit.*—The Corporation represented that profit allowed in the past was not adequate. It urged that since its plants have been in continuous operation for over 14 years and were in urgent need of rehabilitation, profit should be allowed on the basis of 10 per cent. on the replacement value of the block and interest at 6 per cent. on working capital. We have given the matter our careful consideration. Since a fresh inquiry will be held in 1960, we do not propose to lay down any principle of profit fixation for this industry at this stage. We have.

therefore, decided to continue the same incidence per ton on account of "interest on working capital" and "return on block" as was adopted in our estimates for 1956.

13.2.5. The fair ex-works prices of ingots, sheets and circles for 1957-58 compare as follows with those estimated by us for 1956:—

(A) *Ingots*—

(Rs. per ton)

	Commissions' estimate for 1956	Actuals for 1957-58
Cost without depreciation	1,920.68	2,202.61
Depreciation	286.24	234.35
Margin for contingency	33.00	..
Return and interest	682.21	682.21
	2,922.13	3,119.17

(B) *Sheets and Circles*—

(Rs. per ton)

	Commission's estimate for 1956		Actuals for 1957-58	
	Sheets	Circles	Sheets	Circles
Cost without depreciation	3,306.31	3,326.18	3,870.58	3,798.30
Depreciation	172.71	172.71	244.89	244.89
Return and interest	208.29	208.29	208.29	208.29
	3,687.31	3,707.18	4,323.76	4,251.48

13.3. *Indian Aluminium Company.*

13.3.1. *Alumina.*—The Company's output of alumina went up to 14,060 tons during 1957 and is expected to go up to 15,500 tons in 1958. A larger output has been planned in order to meet partly the requirements of the Hirakud Smelter which is expected to go into production in the beginning of 1959. Actual cost of production without

depreciation during 1957 worked out to Rs. 318·62 per ton of alumina as against our previous estimate of Rs. 331.68 per ton for 1956. Inclusive of railway freight the cost at Alupuram during 1957 worked out to Rs. 410.18 per ton of alumina. The following statement gives the broad break-down of the cost of production:—

	Commission's estimate for 1956	Actuals for 1957
Production of calcined alumina (tons)	10,000	14,060
	Rs. per ton	Rs. per ton
Raw materials	130.17	124.66
Power and fuel	70.59	74.39
Labour	15.30	15.21
Repairs and maintenance and consumable stores	39.06	33.33
Establishment, other overheads and bags	76.56	71.03
Net cost of production without depreciation	331.68	318.62
Add railway freight to Alupuram	85.00	91.56
Cost of alumina at Alupuram	416.68	410.18

13.3.2. *Ingot.*—The Company achieved a production of 5,465 tons in 1957 against its present licensed capacity of 5,000 tons. A statement showing the break-down of the cost of production into broad categories is given below:—

	Commission's estimate for 1956	Actuals for 1957
Production of ingots (tons)	5,000	5,465
	Rs. per ton	Rs. per ton
Raw materials	1,130.21	1,132.57
Power and fuel	304.85	297.54
Labour	52.00	88.54
Repairs and maintenance and consumable stores	63.60	83.42
Pot lining expenses	46.32	35.25
Other overheads less credit	101.18	119.17
Head Office expenses	126.00	190.84
Total cost without depreciation	1,824.16	1,945.33

Head office expenses have been going up steadily year after year. They were Rs. 12.46 lakhs in 1954, Rs. 13.59 lakhs in 1955, Rs. 18.49 lakhs in 1956 and Rs. 22.22 lakhs in 1957. We notice that about 9 per cent. of the production of the Company is not covered by the present scheme of protection. A number of officers at the Head Office are currently doing work for the Hirakud project also, which has not been taken into account in the present inquiry. Necessary adjustments have been made for this factor. Further, since the Alumina plant at Muri is producing additional quantities for stock, suitable adjustments in administrative overheads have been made for such excess production.

13.3.3. *Sheets and circles.*—The Company produced during 1957 at Belur 7,283 tons of protected categories of rolled products. Production of aluminium ingots at Alupuram having been 5,465 tons only, the Company had to supplement its metal requirements partly by re-melting scrap and partly by imports. The break-down of the costs of production is given below:—

	Commission's estimate for 1956	Actuals for 1957
Production all varieties	6,000 tons.	7,283 tons.
	Rs. per ton	Rs. per ton
(1) *Sheets, Common Alloy*		
Cost of metal	2,803.55	3,007.11
Melt loss	28.03	91.27
Remelting	128.74	238.49
Rolling	490.75	563.64
Inspection	10.50	15.29
Packing & Shipping	69.28	130.18
Head Office expenses	52.50	81.36
TOTAL cost without depreciation	3,583.35	4,127.34
(2) *Magnesium Alloy Sheets*		
Cost of Metal	2,803.55	3,007.11
Melt Loss	28.03	94.59
Remelting	160.92	247.16
Rolling	645.96	833.99
Inspection	10.50	15.29
Packing & Shipping	69.28	130.18
Head Office expenses	52.50	81.36
Total cost without depreciation	3,770.74	4,409.68

	Commission's estimate for 1946	Actuals for 1947
Production all varieties	6,000 tons.	7,283 tons.
	Rs. per ton	Rs. per ton
(3) *Sheared circles over 14" diameter*		
Cost of Metal	2,803.55	3,007.11
Melt loss	28.03	98.16
Remelting	149.43	256.49
Rolling	338.82	409.91
Inspection	10.50	15.29
Packing & Shipping	69.28	130.18
Head office expenses	52.50	81.36
TOTAL cost without depreciation	3,452.11	3,998.50
(4) *Coiled sheets*		
Cost of Metal		3,007.11
Melt loss		77.64
Remelting		202.90
Rolling		442.16
Inspection		15.29
Packing & Shipping		130.18
Head Office expenses		81.36
Total cost without depreciation		3,956.64

13.3.4. *Profit.*—As in the case of the Corporation, the incidence of return and interest has been allowed at the rates assumed in our 1955 report for working out 1956 costs.

13.3.5. The following table gives the fair ex-works prices of ingots and sheets and circles for 1957 along with those estimated by us for 1956:—

(Rs. per ton)

	Commission's estimate for 1956	Actuals for 1957
(A) *Ingots*		
Cost without depreciation	1,824.16	1,945.33
Depreciation	267.93	186.27
Margin for contingency	31.50	..
Return and interest	593.96	593.96
Fair ex-works price	2,717.55	2,725.56
(B) *Sheets and Circles*		
(*i*) *Common Alloy sheets*		
Cost without depreciation	3,583.35	4,127.34
Depreciation	154.84	119.46
Return and interest	188.88	188.88
Fair ex-works price	3,927.07	4,435.68
(*ii*) *Magnesium Alloy sheets*		
Cost without depreciation	3,770.74	4,409.68
Depreciation	197.62	149.07
Return and interest	188.88	188.88
Fair ex-works price	4,157.24	4,747.63
(*iii*) *Sheared circles over 14" diameter*		
Cost without depreciation	3,432.11	3,998.50
Depreciation	198.70	98.08
Return and interest	188.88	188.88
Fair ex-works price	3,759.66	4,285.46
(*iv*) *Coiled Sheets*		
Cost without depreciation		3,956.64
Depreciation		127.74
Return and interest		188.88
Fair ex-works price		4,273.26

C.i.f. prices.

14. Three statements (I, II and III) showing c.i.f. prices and landed costs of imported (i) aluminium ingots, (ii) sheets and circles, and (iii) strips and others as furnished by Collectors of Customs and importers are given in Appendix III. The representative of Aluminium Union also furnished certain information regarding c.i.f. prices of recent imports of flat sheets, common alloy (2S and 3S) and magnesium alloy and sheared circles. After discussing the available information at the public inquiry, it was agreed to adopt the following latest c.i.f. prices for the purpose of comparing fair ex-works prices of indigenous products with c.i.f. prices of corresponding imported products.

	Rs. per ton	Country of origin.
1. Aluminium ingot (99.5 percent minimum purity)	2,400	Norway.
2. Flat sheets (Common alloy-2S, 20 gauge, 6" × 36" in continuous length).	4,390	Switzerland.
3. Flat sheets (Magnesium alloy 20 gauge, 6" × 36" in continuous length).	4,749	U. K.
4. Circles sheared (2S : 20 SWG)	4,749	Switzerland.

Comparison of fair ex-works prices with c.i.f. prices and landed costs ex-duty

15. It is our practice to compare c.i.f. prices and landed costs, ex-duty, of comparable imported products with our estimates of future ex-works prices of the articles costed. We have, however, made a departure in the present case. Firstly, we expect significant changes in the future cost of production by at least one unit. Prices of aluminium in overseas markets have fallen owing, it is reported, to the emergence of U.S.S.R. as a cheaper supplier of the metal; this fall has not been arrested and prices still show a downward trend. We have, therefore, compared, in the following table, c.i.f. prices and landed costs ex-duty of imported aluminium ingots, sheets and circles (referred to in paragraph 14) with the actual fair ex-works prices of the corresponding products of Aluminium Corporation (*vide* paragraph 13.2.5.) and Indian Aluminium Co. (*vide* paragraph 13.3.5.).

(Rs. per ton)

	Aluminium Corporation		Indian Aluminium Company			
	Ingots	Common alloy Flat sheets	Ingots	Common alloy Flat sheets	Magnesium alloy Flat sheets	Sheared circles
1. C.I.F. Price	2,400.00	4,390.00	2,400.00	4,390.00	4,749.00	4,749.00
2. Clearing charges at 1 per cent	24.00	43.90	24.00	43.90	47.49	47.49
3. Landed cost ex-duty	2,424.00	4,433.90	2,424.00	4,433.90	4,796.49	4,796.49
4. Fair ex-works price	3,119.17	4,323.76	2,725.56	4,435.68	4,747.63	4,285.46

	Aluminium Corporation		Indian Aluminium Company			
	Ingots	Common alloy Flat sheets	Ingots	Common alloy Flat sheets	Magnesium alloy Flat sheets	Sheared circles
5. Difference between fair ex-works prices and landed cost ex-duty (4—3)	695.17	(—)110.14	301.56	1.78	(—)48.86	(—)511.03
6. Difference as a percentage of c.i.f.	28.97	(—)2.5	12.57	0.04	(—)1.03	(—)10.76
7. Current rates of protective duty.	35 per cent *ad valorem*	35 per cent *ad valorem*	35 per cent *ad valorem*	35 per cent *ad valorem*	35 per cent *ad valorem*	35 per cent *ad valorem*

Measure of protection

16.1. *Aluminium ingots.*—It will be observed from the above table that the import duty required to equate the fair ex-works price of indigenous ingot with the landed cost ex-duty of imported product is 28·97 per cent. in the case of Aluminium Corporation and 12·57 per cent. in the case of Indian Aluminium Company. The existing rate of duty is 35 per cent. *ad valorem.* Considering the fact that overseas prices are falling, it would be unwise to reduce the duty immediately. We recommend, therefore, that protection to aluminium ingots, bars, etc. [I.C.T. Item No. 66(1)] be continued for a further period of two years, that is, till 31st December, 1960 at the existing rate of duty of 35 per cent. *ad valorem.*

16.2. *Aluminium plates, sheets, circles, etc.*

Neither the Corporation nor the Indian Aluminium Company need any tariff protection against imports of flat sheets. The latter does not also need any protection for its sheared circles. *Prima facie,* it would appear that those items should be taken out from the scheme of protection. This, however, does not take account of the fact that both the units have the advantage of using their own ingots which are cheaper. The other re-rollers who have to roll imported ingots cannot be in this comfortable position on account of (i) the higher landed cost of imported metal and (ii) frequent interruptions of production due to shortages of aluminium. This is also apparent from the fact that their total production during 1956 and 1957 did not exceed a quarter of their capacity. We have not assessed the quantum of disadvantages suffered by these re-rollers but we believe that it should be appreciable. Further, though the industry has made satisfactory progress during the period of protection, it will have to expand both quantitatively and qualitatively before it is able to meet our entire requirements. Withdrawal of protection at this stage would, in our view, act as a disincentive to further efforts. We do not recommend any reduction of duty at this stage as we have scrutinised the cost of only a few types of sheets and circles and it would also be anomalous in our view to reduce the duty on the few protected categories of aluminium manufactures while affording no relief to consumers in respect of the wide range of products which are excluded from the scope of protection and are liable to a revenue duty of 35 per cent. *ad valorem.* We, therefore

recommend that protection to aluminium plates, sheets, circles, etc., embraced by I.C.T. Item No. 66(a) should be continued for a further period of two years, that is, upto 31st December, 1960, at the existing rate of duty of 35 per cent. *ad valorem*.

Selling prices

17. It is necessary to mention here that the data collected by us in this inquiry was primarily for the purpose of formulating our recommendations in regard to continuance of protection and the quantum of protective duty that should be maintained till the end of 1960. The figures arrived at by us regarding costs of production have been based on the data furnished by the companies but the details were not verified by our Cost Accounts Officer by an on-the-spot examination. In view of the large changes that are taking place in the structure of the industry it was assumed that an estimation of future costs on the basis of available data would be neither practicable nor accurate. For the same reason we refrained from applying our present method of profit fixation on employed capital, but adopted the per ton figure relating to the last inquiry. Taking into consideration all these factors we are of the view that the fair ex-works prices indicated by us should not form the basis for any upward revision of selling prices of aluminium and its products.

Summary of conclusions and recommendations

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

(i) The scope of the inquiry covers all articles covered by I.C.T. items Nos. 66(1) and 66(a). It also covers non-ferrous alloys containing more than 97 per cent. of aluminium in either of the forms mentioned in the above two I.C.T. items as stated in the proviso to I.C.T. item No. 70(1).

[Paragraph 3]

(ii) The requirements of imported raw materials by Aluminium Corporation of India Ltd. and Indian Aluminium Co. Ltd. should be assessed on the basis of their respective revised capacities claimed by the two units.

[Paragraph 6.4.1]

(iii) The domestic demand for aluminium in 1958 is estimated at 35,000 tons. It is expected to go upto 44,000 tons by 1961.

[Paragraph 7.3]

(iv) Protection to aluminium industry should be continued for a further period of two years, that is, till 31st December, 1960 and the existing rate of duty of 35 per cent. *ad valorem* should be maintained on (1) aluminium in any crude form, including ingots, bars, blocks, etc. [I. C. T. item No. 66(1)] and (2) aluminium manufactures, namely, plates, sheets, circles, strips and foil, including foil in any form or size ordinarily used as parts and fittings of teachests [I.C.T. item No. 66(a)].

[Paragraphs 16.1 & 16.2]

Acknowledgements

19. We wish to express our thanks to the manufacturers, importers and consumers who furnished us with valuable information and to their representatives who gave evidence before us.

C. RAMASUBBAN,
Chairman.

S. K. MURANJAN,
Member.

J. N. DUTTA,
Member.

R. S. BHATT,
Member.

RAMA VARMA,
Secretary

BOMBAY;
Dated 3rd October, 1958.

APPENDIX I

(*Vide* Paragraph 4.1)

List of firms/bodies/associations to whom the Commissions questionnaires/letters were issued and those who replied

*Indicates those who replied.

PRODUCERS :

*1. Aluminium Corporation of India Ltd., 7, Council House Street, Calcutta-1.
*2. Indian Aluminium Co. Ltd., 31, Chowringhee Road, Calcutta-16.

ASSOCIATIONS OF PRODUCERS :

1. Indian Non-ferrous Metals Manufacturers' Association, India Exchange, Calcutta-1.
*2. All India Non-ferrous Metalware Manufacturers' Association, Liberty Building, Marine Lines, Bombay-1.

IMPORTERS :

*1. Aluminium Hindustan Private Ltd., 2, Jessore Road, Dum Dum, Calcutta-28.
*2. Aluminium Union Ltd., 41, Chowringhee, Calcutta-16.
3. Devidayal Metal Industries (Private) Ltd., Post Box No. 6215, Gupta Mills Estate Bombay-10.
*4. Imperial Chemical Industries (India) Private, Ltd., 34, Chowringhee, Calcutta-1.
*5. Jeewanlal (1929) Ltd., 31, Netaji Subhas Road, Calcutta-1.
*6. Lallubhai Amichand Private Ltd., 225/7, Tardeo Road, Bombay.
7. T.I. of India Ltd., Post Box No. 6581, Calcutta.
*8. Venesta Ltd., Kamarhati, 24-Parganas, West Bengal.

TRADE ASSOCIATIONS :

*1. Andhra Chamber of Commerce, 272/3, Angappa Naick Street, Post Box No. 1511, Madras-1.
*2. The Southern India Chamber of Commerce, Indian Chamber Buildings, Post Box No. 1208, Madras-1.
*3. Hindustan Chamber of Commerce, 168, Broadway, Madras-1.

GOVERNMENT DEPARTMENTS :

*1. Collector of Customs, Bombay.
*2. Collector of Customs, Calcutta.
*3. Collector of Customs, Madras.
*4. Collector of Customs, Cochin.
*5. The Chief Industrial Adviser, Development Wing, Udoyg Bhavan, King Edward Road, New Delhi.
*6. First Secretary (Commercial) to the High Commission for India in Canada, 200, MacLaren Street, Ottawa-4, Canada.
*7. First Secretary (Commercial) to the Embassy of India, 2107, Massachusetts Avenue Washington-8, U.S.A.
*8. Minister (Economic) to the High Commission for India in the United Kingdom India House, Aldwych, London, W.C. 2, England.
9. First Secretary (Commercial) to the Legation of India, 17, Geyergasse, Vienna XVIII, Austria.
10. First Secretary (Commercial), Embassy of India, 262, Koblenzorstrasse, Bonn, W. Germany.
11. First Secretary (Commercial) to the Embassy of India, 15, Rue Alferd Dehodeneq, Paris XVI eme, France.

APPENDIX II

(*Vide* Paragraph 4.3)

List of persons who attended the public inquiry on 25th August, 1958

PRODUCERS :

1. Mr. H. V. Echols	Representing	Indian Aluminium Co. Ltd., 31, Chowringhee Road, Calcutta-16.
2. Mr. J. M. Martin		
3. Shri A. L. Sabharwal		
4. Shri S. K. Basu		
5. Shri Mahesh Chandra		
6. Shri K. K. Bhasin	,,	Aluminium Corporation of India. Ltd., 7, Council House Street, Calcutta-1.
7. Shri N. L. V. Subramanyam		
8. Shri K. N. Menon		
9. Shri Ramanlal M. Shah.	,,	The Metal Rolling Works Ltd., 104, Sion-Matunga Estate, Bombay-22; and Lallubhai Amichand Ltd., 48/50, Kansara Chawl, Bombay-2.
10. Shri N. M. Shah	,,	The Metal Rolling Works Ltd., 104, Sion-Matunga Estate, Bombay-22.
11. Shri Gopaldas Aggarwal	,,	Devidayal Metal Industries Private) Ltd., Gupta Mills Estate, Bombay-10.
12. Shri Devkumar Aggarwal		
13. Shri K. S. Rao	,,	Rashtriya Metal Industries Ltd., 28/30, Anantwadi, Bombay-2.
14. Shri S. P. Bhambri	,,	Popular Metal Works and Rolling Mills, Sion, Bombay-22.

IMPORTERS :

15. Mr. D. D'Mello	,,	Aluminium Hindustan Private Ltd., 2, Jessore Road, Dum Dum, Calcutta-28.
16. Shri Yaduraj Kaul	,,	Aluminium Union Ltd., 41, Chowringhee, Calcutta-16.
17. Shri R. G. Shah	,,	Lallubhai Amichand Private Ltd., 48/50, Kansara Chawl, Bombay 2.
18. Shri H. K. Shah	,,	Jeewanlal (1929) Ltd., 31, Netaji Subhas Road, Calcutta-1.
19. Shri R. B. Jasani		
20. Shri C. P. Bhatt		

CONSUMERS :

21. Shri W. N. Kamath . . .	Representing	India Pistons Private Ltd., Huzur Gardens, Sembiam, Madras-11.
22. Shri V. K. Patel . . .	,,	Premraj Ganpatraj & Co., 419-B, Kalbadevi Road, Bombay-2.

ASSOCIATIONS:

23. Shri J. F. Fernandez . . Shri C. P. Bhatt . . .	,,	All India Non-ferrous Metalware Manufacturers' Association, Liberty Building, Marine Lines, Bombay-1.
24. Shri D. K. Bhatt . . .	,,	Western India Sheet Rollers' Association, Kamani Chambers, Nicol Road, Ballard Estate, Bombay.
25. Shri K. V. Shah . . .	,,	Bombay Aluminium Merchants' Association, 56, 1st Bhoiwada, Bombay-2.
26. Shri Hiralal Jethalal . . 27. Shri M. S. Mehta . .	,,	Bombay Metal Exchange Ltd. Gogate Mansion, Kika Street, Bombay-2.
28. Shri M. S. Sambasivam . .	,,	Andhra Chamber of Commerce, Andhra Chamber Building, 272/3, Angappa Naick Street, Madras-1.
29. Shri G. R. Rao . . .	,,	Hindustan Chamber of Commerce, 168, Broadway, Madras 1.

GOVERNMENT DEPARTMENTS :

30. Shri C. J. Shah . . .	,,	Development Wing, Ministry of Commerce and Industry, Udyog Bhavan, King Edward Road, New Delhi.
31. Shri A. B. Rao. . .	,,	Indian Standards Institution, Manak Bhavan, 9, Mathura Road, New Delhi.

APPENDIX III

(*Vide* Paragraph 14)

Statements showing c.i.f. prices and landed costs of imported aluminium ingots, sheets, circles, strips and others

(Rs. per ton)

Sl. No.	Source of information	Origin of import	Date of import	Type and specification	C.i.f. price	Customs duty	Clearing charges	Landed costs	Remarks
1	2	3	4	5	6	7	8	9	10
				Statement I—Ingots					
1	Collector of Customs, Madras.	Norway .	9-5-1958	99.5% minimum purity virgin aluminium ingot.	2,400.98	841.93	14.67	3,257.58	
2	Collector of Customs Calcutta.	Norway .	March, 1958	Aluminium ingot, 98% purity.	2,627.56	926.21	16.13	3,569.90	
		Do.	April, 1958	Ditto	2,627.56	926.54	18.73	3,572.83	
		Do.	May, 1958	Ditto	2,400.98	846.64	19.33	3,266.95	
3	Collector of Customs, Bombay.	Norway .	May, 1958	Virgin aluminiuim ingots 99.5% purity.	2,643.20	925.12	132.16	3,700.48	
		U.S.S.R. .	April, 1958	Ditto	2,531.20	885.92	126.56	3,543.68	
4	Jeewanlal (1929) Ltd., Calcutta.	Norway .	May, 1958	Virgin and in 1-20K form, 99.5% guaranteed minimum purity.	2,408.35	842.92	15.00	3,266.27	

5	Lallubhai Amichand Private Ltd., Bombay.	Norway .	31-5-1958	Aluminium ingot 99.5% minimum purity.	2,638.43	923.45	20.00	3,581.88	
6	Aluminium Union Ltd., Calcutta.	Norway .	2-4-1958	99.5% minimum purity aluminium ingot in 1-20K form.	2,400.00	840.00	20.00	3,260.00	
		Canada .	29-7-1957	Alcan 99.5% purity virgin aluminium ingot butts.	2,822.00	988.00	20.00	3,830.00	
7	All India Non-ferrous Metalware Manufacturers' Association, Bombay.	Canada/ Norway	July, 1958 (Quotation)	Aluminium ingot 99. 5% purity.	2,408.35	..	..	..	The Association has stated that U.S.S.R. prices are cheaper by Rs. 133.33 per ton.
8	Indian Aluminium Co Ltd., Calcutta.	Canada Norway	July, 1958 Ditto	Aluminium ingot Ditto	2,419.00 2,400.00	.. ..	.. ..	.. ..	
9	Aluminium Corporation of India Ltd., Calcutta.	U.K. .	June, 1958	Ditto	2,400.00*	..	..	..	*F.o.b. quotation.
		Canada .	Ditto	Ditto	2,453.00*	..	..	..	
		U.S.A. .	Ditto	Ditto	2,787.00*	..	..	..	
		Italy .	Ditto	Ditto	2,893.00*	..	..	..	
		Japan .	Ditto	Ditto	3,440.00*	..	..	..	
10	The High Commission for India in Canada.	Canada .	June, 1958 (Quotation)	Aluminium ingot 99.5% minimum purity.	2,400.00	..	..	..	
11	The High Commission for India in the United Kingdom.	U.K. .	July, 1958 (Quotation)	Virgin aluminium ingot 99.5% minimum purity.	2,400.00	..	..	..	

(Rs. per ton)

1	2	3	4	5	6	7	8	9	10
				STATEMENT II—SHEETS AND CIRCLES					
				(i) Sheets					
1	Collector of Customs, Calcutta.	U.K.	Feb., 1958	8′×3′×31G, B.A.60H Hard.	5,105.36	1,797.15	35.00	6,937.51	
2	Collector of Customs Bombay.	U.K.	Dec., 1957	B.A. 60 alloy 3/4 hard 36″×028″ thick.	3,068.80	1,074.08	153.44	4,296.32	
3	Jeewanlal (1929) Ltd., Calcutta.	Japan	Feb., 1957	Virgin 28 flat 99% and up purity 20 SWG, 8′×3′.	3,452.00	1,087.36	15.00	4,554.36	
4	Aluminium Union Ltd., Calcutta.	U.K.	11-12-1957	3S½H ·010″×20″7/8″×29 3/4″.	4,249.00	1,487.00	50.00	5,786.00	
		U.K.	24-10-1957	3S½H ·010″×20′×28″	5,145.00	1,801.00	50.00	6,996.00	
5	Aluminium Hindustan Private Ltd., Calcutta	U.K.	April, 1957	26 SWG	4,366.75	1,383.44	35.00	5,785.19	The Company had stated that the f.o.b. quotations for sheets in June, 1958 were as follows :— Sheets 28SWG—Rs. 4,425.46 per ton. Sheets 31 SWG—Rs. 4,924.10 per ton.
		U.K.	June, 1957	18SWG	3,759.86	1,323.52	35.00	5,118.38	
		U.K.	July, 1957	22SWG	3,926.60	1,382.21	35.00	5,343.81	
		U.K.	Sept., 1957	31 SWG	4,985.04	1,754.80	35.00	6,774.84	
		U.K.	Oct., 1957	28 SWG	4,462.00	1,577.73	35.00	6,094.73	

6	Indian Aluminium Co. Ltd., Calcutta.	U.K.	July, 1958	Aluminium flat sheet, 2S, 20 gauge.	4,502.40	..	..	..	
		Switzerland	July, 1958	Ditto	4,390.40	..	..	..	
		U.K.	July, 1958	Aluminium flat sheet, M 57S, 20 gauge.	4,748.80	..	..	..	
7	Aluminium Corporation of India Ltd., Calcutta.	U.K.	June, 1958	Sheets SWG	3,920.00*	..	..	..	*F.o.b. Quotation.
		Italy	June, 1958	Ditto.	3707·00*	..	..	..	
		Canada	June, 1958	Ditto.	4,373.00*	..	..	..	
		U.S.A.	June, 1958	Ditto.	4,373.00*	..	..	..	
8	The High Commission for India in Canada.	Canada	June, 1958 (Quotations)	Aluminium flats sheet 2S and 3S (8′×3′, 8′×4′ 6′×3′ and 6′×4′) :—					
				Up to 8B and S gauge	4,475	..	..	..	
				9-12 B and S gauge	4,475	..	..	..	
				13 and 14 B and S gauge	4,475	..	..	..	
				15 and 16 B and S gauge	4,528	..	..	..	
				18 B and S gauge	4,581	..	..	..	
				20 B and S gauge	4,688	..	..	..	
				22 B and S gauge	4,688	..	..	..	
				24 B and S gauge	4,688	..	..	..	
				26 B and S gauge	4,912	..	..	..	

APPENDIX III—*Contd*

(Rs. per ton)

1	2	3	4	5	6	7	8	9	10
8	The High Commission for India in Canada—*Contd*	Canada	June, 1958 (Quotations)	Aluminium flat sheet 57 S (8′×3′, 8′×4′, 6′×3′ and 6′×4′)—					
				Up to 8 B and S gauge	4,747	..	..	..	
				9-12 B and S gauge .	4,853	..	..	..	
				13 and 14 B and S gauge.	4,960	..	..	..	
				15 and 16 B and S gauge.	5,173	..	..	..	
				18 B and S gauge .	5,387	..	..	..	
				20 B and S gauge .	5,600	..	..	..	
				22 B and S gauge .	5,696	..	..	..	
				24 B and S gauge .	5,696	..	..	..	
				26 B and S gauge .	5,941	..	..	..	
				Aluminium flat sheet 65 S F4 (8′×3′, 8′×4′, 6′×3′ and 6′×4′)—					
				Up to 8 B and S gauge	5,013	..	..	..	
				9-12 B and S gauge .	5,120	..	..	..	
				13 and 14 B and S gauge.	5,333	..	..	..	

15 and 16 B and S gauge.	5,546	..	..	..
18 B and S gauge .	5,867	..	..	..
20 B and S gauge .	6,187	..	..	..
22 B and S gauge .	6,325	..	..	..
24 B and S gauge .	6,325	..	..	..
26 B and S gauge* .	7,189	..	..	..
Aluminium flat sheet 65 ST 6 (8′×3′, 8′×4′, 6′×3′ and 6′×4′)—				
Up to 8 B and S gauge	5,067	..	..	..
9-12 B and S gauge .	5,173	..	..	..
13 and 14 B and S gauge	5,387	..	..	..
15 and 16 B and S gauge	5,600	..	..	..
18 B and S gauge .	5,920	..	..	..
20 B and S gauge .	6,240	..	..	..
22 B and S gauge .	6,379	..	..	..
24 B and S gauge .	6,379	..	..	..
26B and S gauge* .	7,243	..	..	..

*Available only in sizes 8′×3′ & 6′×3′.

*Available only in sizes 8′×3′ & 6′×3′.

APPENDIX III—*Contd.*

(Rs. per ton)

1	2	3	4	5	6	7	8	9	10
9	The High Commission for India in the United Kingdom.								The quotations received from the High Commission were f. o. b. prices and stated to be approximate.
		U.K.	July, 1938	Commercially pure aluminium flat sheet, 6′×3′ and 8′×3′—					For 3S alloy flat sheet, add Rs. 62.22 per ton.
				16 SWG	4,044.44	..	..	..	
				18 SWG	4,168.89	..	..	..	
				20 SWG	4,293.33	..	..	..	
				22 SWG	4,417.77	..	..	..	
				24 SWG	4,542.22	..	..	..	
				26 SWG	4,666.67	..	..	..	
				Commercially pure aluminium flat sheet, 6′×4′ and 9′×4′—					For 3S alloy flat sheet, add Rs. 62.22 per ton.
				16 SWG	4,044.44	..	..	..	
				18 SWG	4,168.89	..	..	..	
				20 SWG	4,293.33	..	..	..	
				22 SWG	4,542.22	..	..	..	
				24 SWG	4,791.11	..	..	..	
				26 SWG	4,977.78	..	..	..	

M 57S aluminium alloy flat sheet, 6′×3′ and 8′×3′—				
16 SWG	4,231.11	..	..	..
18 SWG	4,355.55	..	..	..
20 SWG	4,542.22	..	..	..
22 SWG	4,791.11	..	..	..
24 SWG	5,102.22	..	..	..
26 SWG	5,475.56	..	..	..
M 57S aluminium alloy flat sheet, 6′×4′ and 8′×4′—				
16 SWG	4,231.11	..	..	..
18 SWG	4,355.55	..	..	..
20 SWG	4,542.22	..	..	..
22 SWG	5,040.00	..	..	..
24 SWG	5,600.00	..	..	..
65 SW aluminium alloy flat sheet, 6′×3′ and 8′×3′—				For 65 SWP alloy flat sheet, add Rs. 124.44 per ton.
16 SWG	4,417.77	..	..	..
18 SWG	4,604.44	..	..	..
20 SWG	4,853.33	..	..	..
22 SWG	5,164.44	..	..	..
24 SWG	5,537.78	..	..	..
26 SWG	6,035.56	..	..	..

APPENDIX III—*Contd.*

(Rs. per ton)

1	2	3	4	5	6	7	8	9	10
9	The High Commission for India in United Kingdom—*contd.*	U.K.	July, 1958	65 SW aluminium alloy flat sheet, 6′×4′ and 8′×4′—					For 63 SWP alloy flat sheet, add Rs. 124.33 per ton.
				16 SWG	4,417.7	..	..	..	
				18 SWG	4,604.44	..	..	..	
				20 SWG	4,853.33	..	..	..	
				22 SWG	5,413.33	..	..	..	
				24 SWG	6,035.56	..	..	..	
				ii. Circles.					
1	Jeewanlal (1929) Ltd., Calcutta.	Japan	Feb., 1957	Virgin 2SO Mill finish 99% pure.	3,679.42	1,159.19	15.00	4,853.61	The Company had stated that the c.i.f. quotation for aluminium circles from U.K. in July, 1958 was Rs. 3,237.85 per ton for all sizes and all gauges.
		U.K.	Ditto.	Ditto.	4,954.06	1,277.00	15.00	5,346.06	
		U.K.	Ditto.	Ditto.	3,830.19	1,222.00	15.00	5,117.19	
2	Indian Aluminium Co. Ltd., Calcutta.	U.K.	July, 1958	Circles 2 S, 20 gauge	4,816.00	..	..	..	
		Switzerland	Ditto.	Ditto.	4,748.00	..	..	..	
3	Aluminium Corporation of India Ltd., Calcutta.	U.K.	June, 1958	Circles 6″—18″ diameter, 20 SWG.	4,513.00	..	..	..	F.o.b. quotation.

4	The High Commission for Canada India in Canada.	June, 1958 (Quotations)	Aluminium circles, Alcan 2S or 3S, 5", 6" diameter—			
			10-14 B and S gauge	5,013	..	.. ..
			15-16 B and S gauge	5,067	..	.. ..
			18 B and S gauge	5,173	..	.. ..
			20 B and S gauge	5,504	..	.. ..
			22 B and S gauge	5,504	..	.. ..
			24 B and S gauge	5,504	..	.. ..
			Aluminium circles, Alcan 2S or 3S, over 6" to 36" diameter—			
			10-14 B and S gauge	4,800	..	.. ..
			15-16 B and S gauge	4,853	..	.. ..
			18 B and S gauge	4,960	..	.. ..
			20 B and S gauge	5,184	..	.. ..
			22 B and S gauge	5,184	..	.. ..
			24 B and S gauge	5,184	..	.. ..
			Aluminium circles, alcan 2S or 3S, over 36" to 48" diameter—			
			10-14 B and S gauge	4,960	..	.. ..
			15-16 B and S gauge	5,013	..	.. ..
			18 B and S gauge	5,131	..	.. ..
			20 B and S gauge	5,355	..	.. ..
			22 B and S gauge	5,355	..	.. ..
			24 B and S gauge	5,355	..	.. ..

APPENDIX III—*Contd.*

(Rs. per ton)

1	2	3	4	5	6	7	8	9	10
5	The High Commission for India in the United Kingdom.								The quotation received from the High Commission were f.o.b. prices and stated to be approximate.
		U.K.	July, 1958	Commercially pure aluminium circles, 2"-3" diameter—					
				10 SWG . . .	4,728.89	..	..	..	
				12 SWG . . .	4,853.33	..	..	..	
				14 SWG . . .	4,853.33	..	..	..	
				16 SWG . . .	4,915.56	..	..	..	
				18 SWG . . .	5,040.00	..	..	..	
				20 SWG . . .	5,164.44	..	..	..	
				22 SWG . . .	5,226.67	..	..	..	
				24 SWG . . .	5,351.11	..	..	..	
				Commercially pure aluminium circles, 3"-4" diameter—					
				10 SWG . . .	4,604.44	..	..	..	
				12 SWG . . .	4,604.44	..	–	..	

14 SWG . . .	4,604.44	..	..	..
16 SWG . . .	4,666.67	..	..	..
18 SWG . . .	4,728.89	..	..	..
20 SWG . . .	4,915.56	..	..	..
22 SWG . . .	4,977.78	..	..	..
24 SWG . . .	5,102.22	..	..	..
Commercially pure aluminium circles, 4"-6" diameter—				
10 SWG . . .	4,480.00	..	..	..
12 SWG . . .	4,480.00	..	—	..
14 SWG . . .	4,480.00	..	—	..
16 SWG . . .	4,542.22	..	..	..
18 SWG . . .	4,604.44	..	—	—
20 SWG . . .	4,728.89	..	—	—
22 SWG . . .	4,853.33	..	—	—
24 SWG . . .	4,977.78	..	—	—
Commercially pure aluminium circles, 6"-18" diameter—				
10 SWG . . .	4,355.56	—	—	—
12 SWG . . .	4,417.78	..	—	—
14 SWG . . .	4,417.78	..	..	..

APPENDIX III—*Contd.*

(Rs. per ton)

1	2	3	4	5	6	7	8	9	10
5	The High Commission for India in the United Kingdom—*contd.*	U.K.	July, 1958	Commercially pure aluminium circles, 6″-18″ diameter,—					
				16 SWG . . .	4,480.00	..	..	..	
				18 SWG . . .	4,542.22	..	..	..	
				20 SWG . . .	4,604.44	..	..	..	
				22 SWG . . .	4,666.67	..	..	..	
				24 SWG . . .	4,791.11	..	..	..	
				Commercially pure aluminium circles, 18″-24″ diameter—					
				10 SWG . . .	4,355.56	..	..	..	
				12 SWG . . .	4,480.00	..	..	..	
				14 SWG . . .	4,480.00	..	..	..	
				16 SWG . . .	4,542.22	..	..	..	
				18 SWG . . .	4,666.67	..	..	..	
				20 SWG . . .	4,728.89	..	..	..	
				22 SWG . . .	4,977.78	..	..	..	
				24 SWG . . .	5,102.22	..	..	..	
				Commercially pure aluminium circles, 24″-36″ diameter—					
				10 SWG . . .	4,355.56	..	..	..	
				12 SWG . . .	4,480.00	..	..	..	

				14 SWG . . .	4,480.00	..	..	..
				16 SWG . .	4,542.22	..	..	..
				18 SWG . . .	4,666.67	..	..	..
				20 SWG . . .	4,728.89	..	..	..
				22 SWG . . .	4,977.78	..	...	..
				Commercially pure aluminium circles, 36″ 48″ diameter—				
				10 SWG . . .	4,480.00	..	..	..
				12 SWG . . .	4,604.44	..	..	..
				14 SWG . . .	4,604.44	..	..	..
				16 SWG . . .	4,666.67	..	..	..
				18 SWG . . .	4,853.33	..	..	..
				20 SWG . . .	4,915.56	..	..	..
				22 SWG . . .	5,102.22	..	..	..

STATEMENT III—OTHERS

1	Collector of Customs, Calcutta.	U.K.	May, 1958	Aluminium strips coiled or reeled for tea-chest lining 45 mm ×22″, 23″, 24″ and 26″ wide.	3,830.60	1,341.00	9.00	5,180.60
		U.K.	May, 1958	Aluminium strips coiled or reeled for tea-chest lining 45 mm× 21″ wide.	3,700.00	1,295.00	9.00	5,004.00

APPENDIX III—*Concld.*

(Rs. per ton)

1	2	3	4	5	6	7	8	9	10
1	Collector of Customs, Calcutta—*contd.*	U. K.	Feb., 1958	Coiled stripes 16½″ × ·010″ (33G) RA 99% H. Hard.	4,293.01	1,511.20	35.00	5,839.21	
		Germany	Jan.,1958	Aluminium strips and wire, 98% purity.	4,188.80	1,456.00	291.20	5,936.00	
		Germany	March,1958	Aluminium strips 98% purity.	4,681.60	1,635.20	112.00	6,428.80	
2	Collector of Customs, Bombay.	Switzerland	Dec.,1957	Aluminium foil, one side gold, hard bright.	7,728.00	2,710.40	380.80	10,819.20	
		U.K.	March,1958	Coiled strip BA 6½ hard 65 mm × ·0092″.	5,062.40	1,097.60	246.40	6,406.40	
3	Aluminium Hindusthan Private Ltd., Calcutta.	U.K.	June,1957	Coiled strip 24 SWG	4,323.06	1,521.78	35.00	5,879.84	
		U.K.	June,1957	Ditto.	4,260.23	1,499.66	35.00	5,794.89	
		U.K.	August,1957	Coiled strip 33 SWG	4,311.13	1,517.68	35.00	5,864.11	
4	Venesta Ltd., 24-Parganas, West Bengal.	U.K.	3-7-1958	Aluminium strip coiled or reeled, gauge 45 mm, size 15″ wide to 26″ wide.	3,804.62	1,341.60	23.35	5,169.57	
		U.K.	9-7-1958	Ditto.	3,677.23	1,296.68	21.34	4,995.25	

GIPN—2—14 T.C. Bom. 58—4-2-59—500.