PTC. 466 (N)
500

GOVERNMENT OF INDIA
TARIFF COMMISSION

REPORT
ON
The Continuance of Protection to The Ball Bearings Industry

BOMBAY, 1962

PRINTED IN INDIA BY THE MANAGER GOVERNMENT OF INDIA PRESS NASIK ROAD AND PUBLISHED BY THE MANAGER OF PUBLICATIONS DELHI-8
1963

Price : (*Inland*) *Rs.* 9·50 (*Foreign*) 22*s.* 2*d.* *or* 3 $ 42 *cents.*

C

India, Tariff (.....Commission)

Report on the Continuance of Protection to the Ball Bearings Industry—1962.

CONTENTS

PARAGRAPH		PAGE
1.	Previous tariff inquiries	1
2.	Present inquiry	1
3.	Method of inquiry	2
4.	Implementation of Commission's ancillary recommendations and suggestions in its last Report (1950)	2
5.	Present position of the industry	4
6.	Production	8
7.	Domestic demand	9
8.	Raw materials	11
9.	Quality and standards	12
10.	Imports and import control policy	14
11.	Exports	14
12.	Existing rates of duty	14
13.	Commission's estimates of the cost of production and fair ex-works prices of indigenous bearings	16
14.	Measure of protection	19
15.	Selling arrangements and selling prices	21
16.	Ancillary recommendations	22
17.	Summary of conclusions and recommendations	23
18.	Acknowledgements	25

APPENDIX

I.	List of parties to whom the Commission's questionnaires/letters were issued and from whom replies or memoranda were received	27
II.	List of factories visited by the Commission and its officers	32
III.	List of persons who attended the Commission's public inquiry	33
IV.	Statement showing names and addresses, installed capacity, production and employment of small scale units manufacturing ball bearings	37

APPENDIX			PAGE
V.	(i)	Statement showing summary of import control policy in respect of ball bearings for licensing periods from April-September, 1960 to April 1962 to March, 1963	41
	(ii)	Statement showing the import control policy in respect of ball bearings for the different licensing periods from April-September, 1960 to April, 1962 to March, 1963	42
	(iii)	Statement showing types of ball bearings, the imports of which are restricted during the period April, 1962 to March, 1963	45
VI.		Statement showing country-wise imports of ball bearings during 1960, 1961 and 1962 (January-May)	54
VII.		Statement showing the c.i.f. prices and landed costs of imported ball bearings	58

PERSONNEL OF THE COMMISSION

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

PANEL FOR THE INQUIRY

SHRI K. R. P. AIYANGAR

SHRI J. N. DUTTA

SHRI J. N. SEN GUPTA

SECRETARY

SHRI PRAMOD SINGH

GOVERNMENT OF INDIA

MINISTRY OF COMMERCE AND INDUSTRY

(Department of International Trade)

New Delhi, the 18th November, 1962.

RESOLUTION

Tariffs

No. 18(1)-T.R./62.—The Tariff Commission has submitted its Report on the continuance or otherwise of protection to the Ball Bearings Industry on the basis of an inquiry undertaken by it under Sections 11(e) and 13 of the Tariff Commission Act, 1951. Its recommendations are as follows : —

(1) Protection to the ball bearings industry should be continued for a further period of three years ending 31st December, 1965, at the existing rate of duty.

(2) In view of economy in costs of production and lower wastage of material (which as it is imported involves saving of foreign exchange) greater flexibility should be allowed to producers to switch over from use of H.C.I. bars to H.C.I. tubes for manufacture of bearings.

(3) Encouragement should be given to the producers by ensuring supply of deep drawing quality M.S. strips for manufacture of cages as this will be more efficient and economical than use of brass.

(4) The I.S.I. should expedite formulation of standard specifications for ball bearings.

(5) Imports of ball bearings should be recorded separately in value and numbers instead of value and weight in the Monthly Statistics of the Foreign Trade of India. Import should also be recorded under the additional heads of (i) ball thrust bearings upto 51 mm. bore diameter and (ii) ball thrust bearings over 51 mm. bore diameter.

(6) The National Engineering Industries Ltd., Jaipur, should properly enforce statistical quality control and utilise its electronic machines for the purpose for which they were procured.

(7) The National Engineering Industries Ltd., Jaipur, should take earnest steps to improve its records of production and process costs in order to exercise better control, effect economies and facilitate determination of costs with accuracy.

(8) The National Engineering Industries Ltd., Jaipur, should explore the possibility of getting its scrap arisings from H.C.I. steel which are very heavy, processed for re-use.

2. Government accept recommendation (1). The necessary legislation to implement this recommendation will be introduced in Parliament in due course.

3. Government have taken note of recommendations (2) to (5) and would implement them to the extent possible.

4. The attention of the National Engineering Industries Ltd., Jaipur/Industry is invited to recommendations (6) to (8).

ORDER

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

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

REPORT ON THE CONTINUANCE OF PROTECTION TO THE BALL BEARINGS INDUSTRY

1. This is the fourth tariff inquiry into the continuance of protection and/or assistance to the ball bearings industry, the previous inquiries having been held in 1952, 1956 and 1960. On the basis of our recommendation protection was first granted to this industry in 1952 for a period of two years upto 31st December 1954, by converting the revenue duty of 94½ per cent *ad valorem* into a protective duty at the same rate on ball bearings not exceeding 2″ bore diameter and by raising the duty on adapter bearings not exceeding 2″ bore diameter to 10 per cent *ad valorem*, the maximum rate, then permissible under the General Agreement on Tariffs and Trade (GATT). The period of protection was later extended, in consultation with us, upto 31st December 1956. The second inquiry was held in 1956 when we recommended the continuance of protection for a further period of four years with a duty of 94½ per cent *ad valorem* both on ball bearings as well as on adapter bearings not exceeding 2″ bore diameter, since by that time Government had obtained release from its commitments under GATT in respect of adapter bearings. These recommendations were accepted by Government. The rate of duty was later rounded off to 95 per cent *ad valorem* by the Finance (No. 2) Act of 1957. The third inquiry was held in 1960 and envisaging changes in the industry, as the main producer had a substantial expansion programme, we recommended continuance of protection for a further period of two years ending 31st December 1962 at the then existing rate of duty, that is, 95 per cent *ad valorem*. We also recommended that parts of ball bearings and adapter ball bearings upto 2″ bore diameter should also be liable to the same rate of protective duty. These recommendations were accepted by Government.

Previous tariff inquiries.

2.1. As the protection granted to this industry is due to expire on 31st December 1962, the present inquiry has been undertaken under Section 11(e) read with Section 13 of the Tariff Commission Act, 1951, by which we are empowered 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.

2. Present inquiry

2.2. After we initiated the inquiry, National Engineering Industries, which continues to be the main indigenous producer of ball bearings, approached Government with a request to put off the inquiry, as there has been no material change in its conditions since our last inquiry, its expansion scheme having been held up due to circumstances beyond its control. The request was negatived as extension of the term of protection could not be contemplated without a proper inquiry and a survey of the progress and production of this unit which has been enjoying a near monopoly position for ten years.

2.3. In connection with the present inquiry, one of the new units has pleaded that import duty on ball bearings above 51 mm. bore diameter and upto 102 mm. should also be increased to 95 per cent. We have considered its request on merits as falling within the scope of the inquiry and have dealt with it later when discussing the continuance of protection.

3. Method of inquiry

3.1. We issued a press note in March 1962 inviting firms, associations and persons interested in this industry or in industries which use its products to obtain copies of the relevant questionnaires from our office and to submit their replies. Questionnaires were issued to existing and prospective producers, dealers, principal importers and consumers of ball bearings and their associations. The Senior Industrial Adviser, Ministry of Commerce and Industry (Development Wing) and the Development Commissioner, Small Scale Industries, were requested to send detailed memorandum on the large scale and the small scale sector of the industry respectively. The Director General of Supplies and Disposals, the Iron and Steel Controller, the Chief Controller of Imports and Exports and the Indian Standards Institution were addressed for information on issues relevant to the inquiry. Memorandum on the present position of the industry was invited from the Chief Secretary to the Government of Rajasthan, Jaipur. All the State Governments were requested to forward their views regarding the continuance of protection to the industry and other related matters. Data regarding c.i.f. prices and landed costs of imported ball bearings were sought from the Collectors of Customs at principal ports. The High Commission of India in the U.K. and our Embassies in West Germany, U.S.A. and Sweden were requested to furnish the current f.o.b. prices of ball bearings prevailing in those countries. The State Trading Corporation of India was addressed for information regarding c.i.f. prices, etc. of ball bearings imported through it. Suppliers of important indigenous raw materials were addressed for information regarding the supply position of these materials and their prices. A list of those to whom our questionnaires/letters were issued and from whom replies or memoranda were received is given in Appendix I.

3.2. A list of factories visited by us is given in Appendix II.

3.3. Our Cost Accounts Officer examined the costs of production of ball bearings manufactured by the National Engineering Industries, Jaipur, from 7th July to 19th July 1962. A copy of his cost report is submitted to Government as a confidential annexure to this Report.

3.4. A public inquiry into the industry was held on 17th August 1962 at our office in Bombay. A list of those who attended the inquiry is given in Appendix III.

4. Implementation of Commission's ancillary recommendations and suggestions in its last Report (1960).

4.1. The recommendations and suggestions in our last Report (1960) on matters other than tariffs and the extent to which they have been implemented by those concerned are given below :

4.2. *Rcommendation :*

4.2.1. "The Indian Standards Institution should expedite the formulation of standards specifications for ball bearings".

The Indian Standards Institution has stated that a draft standard for boundary dimensions for ball and roller bearings would be circulated shortly for eliciting comments from all interests. This subject is further dealt with in paragraph 9·5.

4.2.2. "The records of costs at present maintained by National Engineering Industries Ltd. should be further expanded and improved so as to facilitate the determination of costs with accuracy".

In a written memorandum the company informed us that the data maintained by it followed strictly the lines discussed with, and advised by our Senior Cost Accounts Officer in 1960 and that there would not be any difficulty in working out costs. Notwithstanding the assurance the company failed to submit the necessary proforma to our Cost Accounts Officer during his cost examination apparently because current statements and summaries of costs for purposes of managerial control were not being kept. Nor has it furnished us with break-down of costs. Further, the company has stated that statistical quality control has been introduced; lack of proper cost control has, in our view, made such professed efforts nugatory.

4.2.3. "National Engineering Industries Ltd., should adopt suitable measures to make its after sales service more effective".

The company has informed us that three additional senior engineers have been allotted for after sales services; that it has decided to extend further this service by adding two more engineers to be permanently attached to its Delhi and Madras offices. It has stated that its engineers have visited during the last one year the majority of important customers all over the country rendering useful service in overcoming difficulties experienced in correct selection of bearings, etc. Some of the consumers have also acknowledged such services.

4.3 *Suggestions :*

4.3.1. "In view of the reported acute shortage and high market prices of bearings sizes Hoffmann Nos. 110, 112, 115, 117, 120, N1025, U110, IS7, S8 and S9 or equivalent sizes of other makes, Government should give early consideration to the suggestions that either domestic production of these items should be raised or their import should be permitted within the overall quota fixed from time to time for the restricted categories of bearings under Serial No. 19(I)(i) of Part II of the Import Trade Control Schedule".

Subsequent to our last inquiry imports were liberalised and the production of these sizes of bearings has also risen substantially. N.E.I. has stated that out of the above sizes N1025, LS7, S8 and S9 are readily available ex-stock; the remaining sizes are in regular production and there is no undue delay in meeting the demand.

4.3.2. "National Engineering Industries Ltd., which had placed in the market its inferior ball bearings by marking them 'X' and erasing N.B.C., should mark them as of second quality so as to avoid abuses in course of distribution".

The company has now informed us that it has stopped marketing its inferior 'X' quality bearings.

5. Present position of the industry.

5.1. As at the time of the last inquiry, National Engineering Industries Ltd., Jaipur (hereinafter mentioned as N.E.I.) is still the only large scale unit in the industry. Dhirajlal & Co., which had commenced production on a small scale in early 1960 has now been converted into a public limited company under the name of Antifriction Bearings Corporation Ltd., with a substantial increase in its licensed capacity. The increased capacity has, however, not yet been installed and it continues production on a small scale. N.E.I. which had secured an industrial licence for substantial expansion (1·5 million bearings) in 1960 and was expected to complete this expansion by 1962 has not yet been able to secure import licence for its plant and machinery against this licence. It has indicated that it will take about twenty four months to commission the plant after completion of all formalities. On this indication this additional capacity is likely to be in production only during the later half of 1964.

5.2. The Development Wing has reported the names of the following units which have been licensed for the manufacture of ball bearings; these include the three units mentioned in our last Report (1960)--

1. Associated Bearing Co. Ltd., Bombay (previously mentioned as Indian S.K.F. Manufacturing Co. Ltd.) ;
2. Bharat Ball Bearing Co., Ltd., Calcutta ;
3. M.P. Bearings (I) (P) Ltd., Bombay ;
4. Precision Bearings India Ltd., Bombay (previously mentioned as K. P. Joshi & Co., Bombay) ;
5. Hindusthan Ball Bearing Co. Ltd., Agra ;
6. Pioneer Bearings, Coimbatore ;
7. Indian Bearings Ltd., Ahmedabad ;
8. New Commercial Bearings Corporation Ltd., Ahmedabad ; and
9. M. Ct. Muthiah, Madras.

According to the information received from the prospective producers during the public inquiry, Bharat Ball Bearing Co. expects to commence production in the beginning of 1963. Associated Bearing Co. and M. P. Bearings India Private Ltd., Bombay are likely to start production during the later half of 1963 and Precision Bearings India Ltd., Bombay, during early 1964. With regard to the rest which are still to

secure foreign collaboration, the position is obscure. Development Wing has expressed difficulty in indicating their probable dates of commencement of production. Government have served on the four parties which have not made any progress on their licences (Sl. Nos. 5 to 8) six months' notice of termination from March 1962. Some of these units have not replied to our questionnaire nor did their representatives attend the public inquiry. Particulars such as date of licence, licensed capacity including bearings of non-protected categories, capital structure, location of factory, name of foreign collaborator and probable date of commencement of manufacture of the units are summarised in the statement given in pp. 6-7.

Although a total additional licensed capacity for the production of ball bearings including thrust bearings as given in the above statement is 11·2 million, a capacity of only 7·1 million (Sl. Nos. 1 to 6 of the statement) is likely to be installed by 1965. Those units which will be commissioned earlier will only start with a fraction of their output and raise it by stages to installed capacity.

5.3. *Small scale sector.*—The Development Commissioner, Small Scale Industries, has reported the existence of thirty-six small scale units manufacturing ball bearings—thirty-four in Punjab and one each at Delhi and Calcutta--having an annual installed capacity of about 1·05 million pieces on single shift. The ball bearings manufactured by these units are stated to be of slow moving types mostly used in cycle rickshaws, chaff cutters, bullock carts, hand pumps, flour mills, oil crushers and furniture, etc., and are of poor quality. Some of them assemble bearings after obtaining from other producers components like balls, cages, etc., and the output of these units is not comparable with that of the producers of precision bearings. A statement showing names, installed capacity, production, employment and investment by these small scale units as furnished by the Development Commissioner is given in Appendix IV.

5.4. N.E.I. manufactures, besides ball bearings, steel balls, axle boxes for railways and spindle inserts for textile machinery. Since the last inquiry the company had added substantial plant and machinery which includes two six-spindle autos (Gridleys), two track, grinders, one centreless grinder and several equipments for inspection, heat treatment, tool room and maintenance department, etc. for its ball bearing plant.

5.5. In our last Report (1960) we had indicated the capacity of N.E.I. as 900,000 bearings per shift. It was expected that when additional machinery including two Gridleys and two grinders is installed the single shift capacity might well exceed 900,000 pieces. With additional machinery and working three shifts the company has been producing substantially above its rated capacity. Based on its performance during the previous years and in accordance with the revised procedure for assessing capacity, the Development Wing has taken steps to raise the installed capacity of N.E.I. and has now assessed it as 3·2 million pieces per annum. We have accepted this as the present capacity of the company.

Statement showing expansion programme of existing & prospective producers

Name of the unit	Date of the industrial licence	Name of the Foreign Collaborator	Location of Factory	Capital structure Paid-up capital (Rs. in lakhs)	Licensed capacity per annum on double shift (In million Nos.)				Probable date of commencement of production
					Ball bearings	Thrust bearings	Other bearings	Total	
1	2	3	4	5	6	7	8	9	10
A. *Existing Producers—*									
1. National Engineering Industries Ltd., Jaipur.	29-6-60	Hoffmann Mfg. Co. Ltd., U. K.	Jaipur	60.00	1.800	..	1.116	2.916*	End of 1964
2. Antifriction Bearings Corporation Ltd., Lonavla.	18-11-60	Steyr-Daimler-Puch A. G., Walz-lagerwerk Steyr, Austria.	Lonavla	27.50	0.116	0.025	0.464	0.605*	1962
B. *Prospective Producers—*									
3. Associated Bearing Co. Ltd., Bombay.	13-5-60	Aktiebolaget Svenska Kullager Fabriken, (SKF) Gothenburg, Sweden.	Poona	10.0	1.500	..	0.900	2.400	End of 1963
4. Bharat Ball Bearing Co. Ltd., Calcutta.	18-11-60	Fafnir Bearing Co., U. S. A.	Ranchi	60.00	2.175	..	0.325	2.500	Beginning of 1963
5. M. P. Bearings India Pvt. Ltd., Bombay.	5-4-61	..	Bombay	..	0.900	..	0.300	1.200	End of 1963

6.	Precision Bearings India Ltd., Bombay.	15-4-57	Norma Hoffmann Bearings Corporation, U. S. A.	Baroda	100.0	0.600	..	1.000	1.600*	1964
7.	Pioneer Bearings, Coimbatore.	12-7-60	..	Coimbatore	..	0.720	0.120	0.480	1.320*	N.A.
8.	Indian Bearings Ltd., Ahmedabad.	8-2-61	..	Ahmedabad	..	0.900	..	0.900	1.800*	N.A.
9.	Hindustan Ball Bearing Co. Ltd., Agra.	30-11-60	..	..	..	0.900	..	0.600	1.500†	N.A.
10.	New Commercial Bearing Corporation Ltd., Ahmedabad.	18-11-60	..	..	..	0.750	..	0.750	1.500†	N.A.
11.	M. Ct. Muthiah, Madras.	17-8-61	..	..	..	0.450	0.240	0.480	1.170†	N.A.

*Licensed capacity being on single shift, it has been doubled.

†Not known whether single or double shift.

The present capacity (1962) of the industry along with capacity figures for 1960 for protected categories of ball bearings are given below :—

	1960	1962
National Engineering Industries Ltd. . . .	1,800,000	3,200,000
Antifriction Bearings Corporation Ltd. . . .	25,000	70,500
	1,825,000	3,270,500

If we add the capacity of small scale units, namely, 1,050,000 bearings as reported by the Development Commissioner for Small Scale Industries, the capacity figures for 1962 will be 4,320,500 bearings.

6. Production

6.1. Production of N.E.I. and Antifriction Bearings Corporation Ltd., for the years 1960, 1961 and 1962 (January—June) is given below:—

(In Nos.)

Name of the producer	Ball bearings up to 1″ bore diameter	Above 1″ and up to 2″ bore diameter	Total	Adapter bearings up to 2″ bore diameter	Total of columns 4 & 5
1	2	3	4	5	6
		1960			
National Engineering Industries Ltd. . . .	1,962,371	728,542	2,690,913	29,533	2,720,446
Antifriction Bearings Corporation Ltd. . .	405	4,190	4,595	Nil	4,595
TOTAL .	1,962,776	732,732	2,695,508	29,533	2,725,041
		1961			
National Engineering Industries Ltd. . . .	2,552,862	639,476	3,192,338	5,841	3,198,179
Antifriction Bearings Corporation Ltd. . .	11,108	18,391	29,499	Nil	29,499
TOTAL .	2,563,970	657,867	3,221,837	5,841	3,227,678

(In Nos.)

1	2	3	4	5	6
			1962 (Jan.-June)		
National Engineering Industries Ltd. . . .	1,580,095	299,551	1,879,646	6,873	1,886,519
Antifriction Bearing Corporation Ltd. . .	7,322	11,860	19,182	Nil	19,182
TOTAL .	1,587,417	311,411	1,898,828	6,873	1,905,701

It will be observed that output has increased steadily from 2·7 million bearings in 1960 to 3·2 million in 1961 and was 1·9 million bearings for the first half of 1962.

6.2. Production of ball bearings of all sizes as reported by the Development Commissioner for Small Scale Industries was 355,079 in 1960, 468,481 in 1961 and 108,016 in the first quarter of 1962.

7. Domestic Demand

7.1. In our last report we estimated the domestic demand for ball bearings up to 2″ bore diameter for 1960-61 at 4·5 million, taking into account the production targets of several industries consuming bearings as original equipment and the requirements for replacement. In doing so we assumed an average life of seven years for ball bearings. As regards the demand for 1963, we had accepted the estimates of the Development Wing which proceeded on the basis of production targets of the consuming industries for the Third Five Year Plan. On the estimate of 11·68 million pieces for the year 1965-66, the demand for the year 1963 was estimated by us at 8·5 to 9 million pieces.

7.2. In connection with the present inquiry, we have received estimates from different sources including producers, importers, consumers and their associations and the Development Wing, N.E.I. has estimated the demand at 5·2 million for 1962 rising to 7·1 million in 1965. Associated Bearing Co. has given an estimate of 4·5 million while K. P. Joshi & Co. 5·3 million for all types of ball bearings as the current demand for 1962. The estimates furnished by the Development Wing are 5·9 million bearings for 1961-62 and 7·4 million bearings for 1962-63.

7.3. The effective demand based on sales of indigenous bearings produced by the organised sector and the imports for 1961 add up to 6·3 million. By including production of the small scale sector the total availability of ball bearings of protected categories will be about 6·8 million for 1961. After taking note of the availability figures for 1961, the estimates of current demand of ball bearings furnished by the several interests and keeping in view complaints raised by the consuming industries regarding long deliveries and short supply of bearings of some of the sizes, we have placed the domestic demand for ball bearings during 1962 at 8:0 million pieces.

7.4. Regarding future demand the estimates vary from 7·1 million furnished by N.E.I. for 1965 to 14 million ball bearings by Bharat Ball Bearing Co. The Development Wing expects the demand for bearings in the protected category to increase to 11·68 million by 1965-66, on the basis of the targets of production of consuming industries fixed for the Third Plan. These targets as submitted by the Development Wing along with its estimates of requirements of ball bearings are indicated below :—

Items	Targets of production in Third Plan (1965-66)	Development Wing's estimate of requirements of ball bearings (1965-66)
1	2	3
		(In Nos.)
1. Electric fans	2.5 million	4,000,000
2. Electric motors	2.5 million H. P. @ 6 H. P. per motor = 417,000 Nos.	700,000
3. Pumps	150,000 to 200,000	247,700 (included under Misc.)
4. Machine tools	Rs. 30 crores	
5. Ring frames 6. Carding engines	N. A.	675,000
7. Heavy machine building plant	Not available	821,700
8. Automobiles	109,000 to 130,000 (higher figure taken into account)	1,926,000 (inclusive of 576,000 bearings for motor cycles and scooters)
9. Cycle rickshaws	Not available	Not available.
10. Defence department	Do.	43,944
11. Sugar machinery	Rs. 10 crores	75,000
12. Steel projects	6.9 million tons	22,500
13. Chaff cutters	Not available	75,000
14. Flour mills	Do.	..
15. Jute machinery	Rs. 235 lakhs	30,000
16. Tractors	Not available	52,000
17. Diesel engines	100,000	5,500
18. Miscellaneous including adapter bearings	..	849,150 (misc. industrial machine tools, oil, and H. E. P.) 2,151,506 (for replacement)
	TOTAL	11,675,000

The consensus of opinion at the public inquiry favoured a higher estimate for future. We are also given to understand that the targets of production of consuming industries fixed for the Third Plan are themselves likely to be revised upwards. Taking these factors into accounts

we have estimated that the domestic demand for ball bearings of protected categories is likely to increase at the rate of 20 per cent every year over the demand of 8·0 million for 1962.

8. Raw materials

8.1. The principal raw materials required for the manufacture of ball bearings and components are given below :—

Raw materials	Parts manufactured
H.C.I. or high carbon chromium steel bars and tubes.	Inner and outer races.
H.C.I. or high carbon chromium steel wires	Steel balls.
M.S. bars, plates, tubes	Nuts, locking plates and sleeves for adapter bearings.
M.S. wire	Rivets for cages.
Brass strips or rods and M.S. strips . .	Cages.

Except brass strips and rods and M.S. bars, plates and tubes, the other raw materials are imported. In addition, consumable stores like emery lapping compound, grinding wheels of special types and sizes, machinery spares, special alloy and tool steel for tools and dies and some chemicals like heat-treatment salts are imported. No difficulty was experienced by the company in obtaining supplies of raw materials and stores. Its complaint was that it had not received adequate import licences for spare parts, tools and inspection equipment.

8.2. The company had been procuring small quantities of H.C.I. steel billets from the Metal and Steel Factory, Ishapore (about 28 tonnes in 1960 and 19 tonnes in 1961) and getting them rolled into bars by MAN Industrial Corporation Ltd., Jaipur. N.E.I. has expressed dissatisfaction with the quality of the products; it has also informed us that Metal and Steel Factory, Ishapore has advised that it would not be in a position to supply these billets during the years 1962 to 1964.

8.3. We have noted an increasing preference for tubes over bars for producing races for ball bearings specially for bigger sizes of bearings. Purchases of tubes by N.E.I. which were nil in 1956 increased to about 48 per cent by weight of the total purchases of bars and tubes in 1961-62. The prospective producers have also indicated that a large portion of their requirements would comprise tubes. N.E.I. has stated that though it is anxious to switch over to the use of tubes for all sizes above 51 mm. outside diameter, its scheme has been held up due to restrictions on imports of necessary tubes and toolings. We are informed that steel tubes are not only a suitable material for producing improved quality bearings but that they are more economical to use and the practice in overseas countries is to use tubes only. Having regard to these developments, we are of the opinion that greater flexibility should be allowed to the producers to satisfy their increasing preference for tubes over bars. It was also stated at the public inquiry that manufacturing practice abroad prefers cages produced from M.S. strips instead of brass as it ensures longer life to bearings particularly at high speeds and

is also more economical. This would also mean for our industry substitution of imported non-ferrous metals by an indigenous product. Encouragement, therefore, needs to be given to the producers by way of supply of deep drawing quality M.S. strips for manufacture of cages instead of from brass strips and bars.

8.4. We are informed by the Iron & Steel Controller that by the end of 1965 high carbon chromium steel wires for making balls may become available as a number of units for drawing such wires are coming up. Special Steels Ltd., Bombay and Hindustan Wires, Calcutta may be able to make supplies earlier. Mysore Iron and Steel Works, Bhadravati and Mukand Iron and Steel Works Ltd., Bombay are said to be in a position to take up the production of high carbon chromium steel bars and wires. Further, when the public sector alloy and tool steel plant goes into production by the end of the Third Plan period, demands for such steel may be met from indigenous production. We are, however, not aware of any manufacturing plan for tubes and would, therefore, suggest that Government may assess the demand of the industry for tubes and plan their manufacture well in advance so as to avoid continued dependence of this industry on imports for its most important item of raw material.

8.5. In the case of units in the small scale sector the raw material used by them for races is M.S. bars which are subjected to carburization and heat treatment. Balls are either imported by the small scale units or procured from one of the indigenous units such as New Haven Steel Ball Corporation, Bombay or N.E.I., Jaipur. For cages it either makes use of M.S. sheets or brass sheets and bars.

9. Quality and standards.

9.1. We observed in our last Report that the quality of indigenous bearings had shown some improvement and that there was still large scope for further improvement. From the views expressed by the various consuming industries in reply to our questionnaire and during the public inquiry, the position does not seem to have changed substantially. Large consumers like Jyoti Ltd., Baroda, Jay Engineering Works, Calcutta, Kirloskar Electric Co., Bangalore and G.E.C. of India, Calcutta continue to express dissatisfaction. Their criticism is that indigenous bearings are not up to the quality of imported ones and that the noise level is high particularly for small bearings used in fans. Some have stated that dimensions and tolerances are not uniform. The complaints about noise could be over stated. The British Standard for instance does not prescribe any level for this. The N.E.I. has contended that all these complaints could be avoided by consumers if they took care to make proper selection of fit of bearings and had good storage conditions. It has also stated that it is using proper anti-rust grease in order to keep the bearings absolutely rust free. Further, with a view to closer control of dimensions, it has introduced the latest design air gauges which reduce the scope of human error. It has also introduced new grinding techniques for the grinding of race tracks. It has also stated that it carries out cent per cent inspection with precision gauges and all components are re-checked before assembly. All assembled bearings are further inspected visually.

9.2. We also mentioned in our last Report that the producer had initiated several measures to improve quality, such as introducing statistical quality control and installing expensive electronic machines for testing. We have, however, observed that statistical quality control has not in fact been enforced. Effective use of the electronic machines for pairing, analysis of noise level and vibrations does not also appear to have been made. This is borne out by the large number of complaints still received.

9.3. Under its agreement with its collaborators, Hoffmann Manufacturing Co. Ltd., of U.K., N.E.I. is allowed the use of the mark "licence Hoffmann" for its bearings and it is also permitted to make use of this mark or words in all trade and other negotiations for advertisement etc., provided the usual conditions of using satisfactory raw materials and checks by inspection approved by the collaborators are observed by the company. The company, however, has not been making use of this mark for several years although it continues to pay the substantial royalty and other dues to its collaborators as per agreement. No satisfactory explanation for not using the mark was forthcoming. We consider that the company should use this facility (if its collaborators are satisfied with the quality of the product), since such a measure could be of great importance to obviate criticism of consumers who complain that indigenous bearings are of lower quality than imported ones. We also consider that the company should properly enforce statistical quality control and utilize its electronic machines for the purpose for which they were procured.

9.4. With regard to the quality of ball bearings manufactured by the small scale sector, it has already been stated in paragraph 8.5 that these units make use of mild steel instead of high carbon chromium steel for races. In the matter of machine tools, jigs and fixtures and inspection instruments used by the industry, these are neither of high precision quality nor suitable for mass scale production. Some of them do not put their own markings while others attempt to use marks which bear close resemblance to those of reputed makes. From the technical advice made available to us, it would appear that an industry like ball bearings which requires high degree of precision and technical know-how as well as mass production machinery, is not well suited to be taken up in the small-scale sector. The small-scale sector has, however, been meeting a substantial portion of the requirements of ball bearings for slow speed machinery, such as, chaff cutters, cycle rickshaws, hand pumps, bullock carts, furniture, flour mills and oil crushers, etc. some of which do not really require ball bearings of a very high standard of precision. On the other hand, in a situation of scarcity there is risk of some of the poorer quality bearings getting sold for uses to which they are not suitable. We suggest that the Development Commissioner, Small Scale Industries, should examine the working of the units in the small scale sector, and the units which are not considered capable of producing ball bearings of acceptable quality even for slow moving machinery, may be discouraged. Such of the units as have made good progress in the direction of manufacture of bearings of better quality, may be given the necessary facilities not only by way of raw

materials but also by way of know-how, machine tools and inspecting equipments in order to enable them to improve further the quality of their products.

9.5. *Standard specifications.*—As stated in paragraph 4.2.1. a draft standard for boundary dimensions of ball and roller bearings has been circulated for comments. It was indicated by the representative of I.S.I. who attended the public inquiry that this draft was likely to be finalised in about four months' time. In view of the continued spate of complaints regarding the quality of indigenous bearings and the new producers coming in the field, we would again like to emphasize the desirability of I.S.I. expediting the formulation of standard specifications.

Imports and import control policy.

10. Details of import control policy and actual imports during 1960, 1961 and 1962 (January-May) are given in Appendix Nos. V and VI. There has been no perceptible change in the policy. The quota for established importers of all categories of ball bearings has remained the same since our last inquiry except that in view of the present foreign exchange position, a general cut of 50 per cent has been made on all established importers' quota. The number of restricted sizes of ball bearings of sizes below 1″ and 1″ to 2″ bore have increased substantially along with the larger indigenous production of these types. Liberal imports were allowed of certain types (about 10 in number) which were not adequately available at the time of our last inquiry. The main producer and some prospective producers have stated that liberal imports of restricted sizes are being allowed to actual users without checking up on their ability to meet the demand. There has been no evidence of accumulation of stocks on this account. On the other hand, some of the importers and consumers have asked for increased import quotas to meet the present demand which exceeds the current over all indigenous production. We do not consider that any change in policy is called for on account of the plea of the importers.

Exports

11. At present there is practically no export of ball bearings, the main reason being that indigenous production is sufficient to meet only about 50 per cent of the demand of the sizes in production. High prices and the need to develop quality upto international standards are also important factors holding back exports. Till such time as the main raw material, high carbon chromium steel bars, wires and tubes become available indigenously at prices comparable to those in overseas markets it is difficult to visualise indigenous production being able to find a favourable export market. The small quantities that have been exported are mainly to adjacent countries like Pakistan, Burma and Singapore.

Existing rates of duty

12. The profected items of ball bearings and adapter ball bearings are assessed to duty under Items No. 72(35), 72(36), and 72(37) of the First Schedule to the Indian Tariff Act, 1934. The rate of duty on

bearings under the three items is 95 per cent *ad valorem*. The relevant extract from the Schedule is reproduced below :—

Item No.	Name of the article	Nature of duty	Standard rate of duty	Preferential rate of duty if the article is the produce or manufacture of			Duration of protective duty
				The U.K.	A British Colony	Burma	
1	2	3	4	5			6
72(35)	Ball bearings of all kinds not exceeding 51 millimetres bore dia. adapted for use as parts and accessories of motor vehicles (other than motor cycles and motor scooters) and parts thereof, not otherwise specified.	Protective	95 per cent *ad valorem*.	..	..	..	December 31st, 1962.
72(36)	Ball bearings of all kinds not exceeding 51 millimetres bore diameter not otherwise specified, and parts thereof.	Protective	95 per cent *ad valorem*.	..	..	..	December 31st, 1962.
72(37)	Adapter ball bearings not exceeding 51 millimetres bore diameter not otherwise specified, which are specially designed for use exclusively with power driven machinery and parts thereof.	Protective	95 per cent *ad valorem*.	..	..	..	December 31st, 1962.

13. Commission's estimates of the cost of Production and fair ex-works prices of indigenous bearings.

13.1. We observed in our last Report that although the cost data then maintained by N.E.I. indicated some improvement, it had not yet introduced adequate system of costing which would enable the working out of costs of various products with a degree of accuracy. The deficiencies then noticed were non-maintenance of actual timings of production as against standard timings, non-reconciliation of consumption of materials, absence of data regarding waste of material during different processes of production distributed product-wise and absence of periodical cost summaries. They are still found to continue. Although the company has said that it has introduced statistical quality control over two years ago no proper results seem to have been derived from such control as it does not appear to have been applied continuously or in a manner that would enable the management to exercise proper cost control, as for instance, reducing wastage and bringing down other cost incidence. We have again impressed on the company in the course of discussions with its representatives the imperative need for removing these short-comings immediately and urged it to take earnest steps towards this end.

13.2. Our Cost Accounts Officer has examined the accounts of the company for the year ended March 1962. He has had to make allocation of indirect expenses on a fair basis, as since our last Report, other activities of the company such as axle boxes and adapter bearings have been enlarged and spindle inserts are also to be produced. The capital expenditure in connection with the axle boxes and spindle insert schemes as well as their respective production have been segregated.

13.3. As on the last occasion the company has failed to make a proper estimate of its production of bearings for future. When there was disruption in its production in 1959-1960, it suggested that the output be taken at 2·4 million bearings per annum and has repeated the suggestion now. The rated capacity of this unit on the old basis was 0·9 million bearings per shift or 2·7 million per year. The Development Wing has now changed its basis of assessing productive capacity by adopting a more pragmatic method. It takes the productive capacity in relation to the actual performance of a unit in the immediate past. As against the low output figure quoted by the company, the actual production during 1960-61 was 3·0 million bearings and in 1961-62 it was 3·25 million bearings. For the first three months of 1962-63, the figure was 0·987 million bearings *i.e.*, annual rate of 3·95 million. The company has contended that the extra production was due to its utilising the machinery, which had been acquired for the axle boxes and adapter bearings expansion and which was not being fully utilised therefor, in the production of protected categories. Its expansion scheme for raising the output by 1·5 million for which a licence was granted in 1960 has not yet been implemented, as due to foreign exchange difficulties Government have advised the company to negotiate credit through D.L.F. The actual production of axle boxes has also remained at a high level since 1961-62, while the machinery for spindle inserts has yet to be commissioned. In the circumstances, after discussion with our technical

adviser and the representative of the Development Wing and having regard to the actual production of 3·25 million bearings in 1961-62, we have decided to estimate the future production at 3·5 million bearings per annum. Our estimates have been worked out on that basis. We have also taken note of the fact that this higher production could be implemented by proper utilisation of raw materials, reducing wastages and by correct use of statistical quality control methods which the company claims to have introduced.

13.4. As against 171 types of ball and roller bearings produced by the company for which prices are listed including the non-protected categories, the number of sizes produced has risen from 147 in 1959-60 to 158 in 1960-61 and in 1961-62, the number of sizes remained at 130. Production of the types ordinarily in use seems to have stabilised. The number of bearings produced would naturally vary according to the types and sizes, for the larger the variety produced, the less would be production owing to change of tools and setting up time, etc.

13.5. Our Cost Accounts Officer has worked out costs of production in detail for 36 sizes for 1961-62 which represented 95 per cent of the total production. He has observed that actual consumption of materials, stores and tools as well as the quantum of wastage of material in all stages of manufacture were higher in 1960-61 and 1961-62 than in earlier years. The company has, however, contended that this is due to the age of the machinery a large part of which has to be scrapped. The reason is not convincing as an abrupt change like that which occurred in 1960-61 cannot take place from one year to another. We have, therefore, decided to adopt the norms of performance including percentage for wastage which after discussion with technical advisers we have considered reasonable. As regards the estimates of working capital as well as the rate of return on capital employed we have maintained the same ratio and percentage of return (12 per cent on capital employed) as on the last occasion. The following statement gives the fair ex-works prices of 38 representative types and sizes of ball bearings below 25 mm. diameter and between 25 mm. and 51 mm. diameter and adaptor bearings.

Statement showing the estimated costs of production and fair ex-works prices per bearing of different sizes.

Sl. No.	Bearing Size No.	Raw material	Conversion charges and depreciation	Total (3) & (4)	Return on capital employed and variable royalty.	Fair ex-works price (5) & (6)
1	2	3	4	5	6	7
		Rs.	Rs.	Rs.	Rs.	Rs.
	A. Bearings (with races produced from bars)					
1	110	0.291	1.176	1.467	0.391	1.858
2	112	0.337	1.214	1.551	0.407	1.958
3	115	0·413	1.253	1.666	0.425	2.091
4	117	0.594	1.291	1.885	0.450	2.335

1	2	3	4	5	6	7
		Rs.	Rs.	Rs.	Rs.	Rs.
5	120 . . .	0.893	1.362	2.255	0.494	2.749
6	130 . . .	1.683	1.781	3.464	0.683	4.147
7	135 . . .	2.442	4.603	7.045	1.627	8.672
8	150 . . .	4.809	6.323	11.132	2.341	13.473
9	310 . . .	0.414	1.214	1.628	0.413	2.041
10	312 . . .	0.498	1.251	1.749	0.430	2.179
11	315 . . .	0.641	1.370	2.011	0.478	2.489
12	317 . . .	0.892	1.362	2.254	0.493	2.747
13	320 . . .	1.136	1.566	2.702	0.575	3.277
14	S—3 . . .	0.120	1.356	1.476	0.436	1.912
15	S—7 . . .	0.335	1.181	1.516	0.396	1.912
16	S—8 . . .	0.519	1.279	1.798	0.440	2.238
17	S—9 . . .	0.755	1.384	2.139	0.491	2.630
18	LS—5 . . .	0.349	1.211	1.560	0.407	1.967
19	LS—7 . . .	0.528	1.266	1.794	0.437	2.231
20	LS—8 . . .	0.949	1.383	2.332	0.504	2.836
21	LS—9 . . .	1.054	1.536	2.590	0.561	3.151
22	LS—10 . . .	1.444	1.811	3.255	0.674	3.929
23	LS—11 . . .	1.743	1.893	3.636	0.722	4.358
24	MS—8 . . .	1.244	1.663	2.907	0.614	3.521
25	MS—9 . . .	1.516	1.805	3.321	0.679	4.000
26	MS—10 . . .	2.056	2.018	4.074	0.785	4.859
27	MS—11 . . .	2.786	4.972	7.758	1.768	9.526
28	MS—12 . . .	3.647	5.306	8.953	1.936	10.889
29	MS—12½ . .	4.558	5.653	10.211	2.111	12.322
30	N—1025 . .	0.134	1.176	1.310	0.380	1.690
31	UT—140-E . .	10.866	7.118	17.984	3.030	21.014
	B. Bearings (with races produced from tubes)					
1	125 . . .	1.341	1.471	2.812	0.561	3.373
2	130 . . .	1.875	1.716	3.591	0.676	4.267
3	135 . . .	2.435	4.440	6.875	1.576	8.451
4	140 . . .	2.996	4.782	7.778	1.723	9.501
5	150 . . .	4.226	6.129	10.355	2.237	12.592
6	325 . . .	1.940	1.724	3.664	0.684	4.348
7	330 . . .	2.783	4.630	7.413	1.661	9.074
8	335 . . .	3.530	5.134	8.664	1.873	10.537
9	340 . . .	4.553	5.578	10.131	2.087	12.218
10	MS—12 . . .	4.173	5.152	9.325	1.926	11.251
11	MS—12½ . .	5.101	5.454	10.555	2.088	12.643
12	UT—155-E . .	16.426	8.220	24.646	3.779	28.425

14.1. The c.i.f. prices and landed costs of imported ball bearings as furnished by the Collectors of Customs and some of the importers are given in Appendix VII. For the purpose of assessing the disadvantage suffered by the indigenous industry, we have adopted the lowest c.i.f. prices excluding only cases of imports which were found to be at exceptionally low rates. The following statement gives a comparison between the estimated fair ex-works prices of indigenous bearings with ex-duty landed cost of imported bearings of similar sizes.

14. Measure of protection.

Statement showing comparison of lowest c. i. f. prices and landed costs ex-duty with the fair ex-works prices for the production of bearings.

Sl. No.	Bearing Size No.	C. i. f. prices	Clearing charges	Landed cost ex-duty of the imported bearing	Fair ex-works price of the indigenous bearing	Estimated production	Difference between fair ex-works price and landed cost ex-duty as a percentage of c. i. f.
1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.	Rs.	Nos.	Per cent.
			I. BALL BEARING				
			(A) Upto 25 mm. bore				
1	110	1.430	0.021	1.451	1.858	236,700	28.46
2	112	1.430	0.021	1.451	1.958	249,700	35.45
3	115	1.430	0.021	1.451	2.091	175,400	44.76
4	117	1.520	0.023	1.543	2.335	391,200	52.11
5	120	1.580	0.024	1.604	2.749	463,100	72.47
6	310	1.410	0.021	1.431	2.041	31,000	43.26
7	312	1.300	0.020	1.320	2.179	18,800	66.08
8	315	1.670	0.025	1.695	2.489	42,300	47.54
9	317	1.920	0.029	1.949	2.747	37,700	41.56
10	320	1.930	0.029	1.959	3.277	106,100	68.29
11	S—3	1.160	0.017	1.177	1.912	20,800	63.36
12	S—7	1.270	0.019	1.289	1.912	65,000	49.06
13	S—8	1.500	0.023	1.523	2.238	169,400	47.67
14	S—9	1.780	0.027	1.807	2.630	101,500	46.24
15	LS—5	1.310	0.020	1.330	1.967	33,800	48.63
16	LS—7	1.530	0.023	1.553	2.231	45,100	44.31
17	LS—8	1.910	0.029	1.939	2.836	69,300	46.96
18	LS—9	1.880	0.028	1.908	3.151	37,100	66.12
19	LS—10	2.440	0.037	2.477	3.929	36,800	59.51
20	MS—8	2.200	0.033	2.233	3.521	14,300	58.55

1	2	3	4	5	6	7	8
		Rs.	Rs.	Rs.	Rs.	Nos.	Per cent.
21	MS—9	2.330	0.035	2.365	4.000	18,400	70.17
22	MS—10	2.530	0.038	2.568	4.859	40,200	90.55
23	N—1025	1.110	0.017	1.127	1.690	73,500	50.72
24	125	1.740	0.026	1.766	3.373	219,300	92.36
25	325	2.480	0.037	2.517	4.348	88,300	73.83
Average		1.614	0.024	1.638	2.566	..	57.50
		(*B*) *Above 25 mm. and upto 51 mm. bore*					
26	130	2.410	0.036	2.446	4.177	126,400	71.83
27	135	2.680	0.040	2.720	8.617	24,000	220.04
28	140	3.280	0.049	3.329	9.501	58,900	188.17
29	150	5.780	0.087	5.867	13.254	15,700	127.80
30	330	3.100	0.047	3.147	9.074	145,100	191.19
31	335	3.720	0.056	3.776	10.537	24,700	181.75
32	340	5.130	0.077	5.207	12.218	32,200	136.67
33	LS—11	2.440	0.037	2.477	4.358	36,400	77.09
34	MS—11	3.250	0.049	3.299	9.526	13,700	191.60
35	MS—12	4.010	0.060	4.070	10.980	56,300	172.32
36	MS—12½	5.690	0.085	5.775	12.403	12,700	116.49
Average		3.280	0.049	3.329	8.309	..	151.83
Average (A) & (B)		1.887	0.028	1.915	3.507	..	84.37
		II. ADAPTER BALL BEARINGS UPTO 51 mm. BORE					
37	UT—140E	8.430	0.126	8.556	21.014	200	147.78
38	UT—155E	11.730	0.176	11.906	28.425	2,500	140.83
Average		11.486	0.172	11.658	27.876	..	141.20
Average I & II		1.895	0.028	1.923	3.527	..	84.64

14.2. It will be seen that the quantum of duty to protect the indigenous products as indicated in the above table ranges from 28·46 per cent to 92·36 per cent for ball bearings upto 25 mm. bore diameter, from 71·83 per cent to 220·04 per cent for ball bearings above 25 mm. and upto 51 mm. bore diameter and 140·83 to 147·78 for adapter ball bearings upto 51 mm. bore diameter. The weighted average of duty calculated on the relative production of different sizes works out to 57·50 per cent for ball bearings upto 25 mm. bore diameter, 151·83 per cent for ball bearings above 25 mm. and upto 51 mm. bore diameter and 141·20 per cent for adapter bearings upto 51 mm. bore diameter. The combined weighted average of ball bearings upto 25 mm. and 25 mm. to 51 mm. bore diameter works out to 84·37 per cent and inclusive of adapter ball bearings upto 51 mm. bore diameter the overall average comes to 84·64 per cent.

14.3. Despite the divergence noticed between the quantum of duty required for different categories and the existing rate of duty, we consider that in view of the present restrictions on imports. It is unnecessary to revise the present rate. Reduction in duty would have no material effect on the consumer or the industry; on the other hand, it would give a larger margin of profit to established importers and dealers. We have also to take note of the fact that in spite of three units having been licensed even before the last inquiry, they have not yet started production. A lowering of protective duty at this stage might prove to be a disincentive to those units which have yet to establish their production and which are endeavouring to bring in a more diversified pattern of production than that of the existing producer. These units will not be able to reach their scheduled production for another three years at least. We have also to take note of the wide gap between the Plan target and the present available indigenous production. We, therefore, recommend that the existing rate of protective duty on ball bearings and adapter ball bearings and parts thereof should be continued for a period of three years to 31st December 1965.

14.4. In paragraph 2.3 we referred to a request that the scope of protection should be widened to cover bearings upto 102 mm. diameter. No evidence was produced as regards the indigenous output of such higher size bearings at present, their cost or how far they will be able to meet the existing demand for each of their sizes. It is not feasible or desirable to anticipate and regulate protection by sizes itemwise. In this connection, Antifriction Bearings Corporation Ltd. has stated that besides the thrust bearings falling in the protected category, it is now producing bearings of sizes up to 76 mm. and has started production of even wider ranges. The company has also stated that it has heavy accumulation of stocks of these bearings, since owing to liberal imports at cheaper prices its products are not being taken. We understand that the output of this unit which has secured satisfactory foreign collaboration is of good quality. It has not been possible to cost this unit to ascertain the specific demand for individual sizes and categories of thrust bearings. We are, however, of the view that production of new varieties of bearings of good quality has to be encouraged in the interest of self-sufficiency and for conserving foreign exchange. While for lack of specific data we are unable to recommend widening of the scope of protection, we would bring this case to the notice of Government for considering sympathetically the question of regulating imports so as not to discourage such indigenous production.

15. Selling arrangements and selling prices.

15.1. There has been no change in the selling arrangements of N.E.I. which we have given in detail in our last Report. We have again received complaints about the unsatisfactory functioning of its sole distributors in certain areas, delays in their fulfilling orders even from large consumers of standing and in promptly attending to complaints about defects in supplies. Despite the undertaking given by the company that large consumers will in future be given priority in the matter of supplies, even a State Transport Authority had

had to reiterate its complaint on this ground. While by and large consumers have taken steps to plan their demand for annual requirements in advance so as to help the production programme of the unit there are still complaints that the company does not deal directly with them and that the transmission of orders through sole agents involves needless delay and extra expenditure not commensurate with the services rendered by such an agency. We cannot too strongly impress on the company the need to deal fairly and directly with substantial institutional consumers who are to be their mainstay, and would suggest that in any directive which Government may like to give to the N.E.I. in regard to prices this deficiency may be taken into account.

15.2. Prices of bearings produced by N.E.I. are not subject to statutory control. The Company has made no change in its list prices since 1959. But there is a persistent complaint that despite ten years of protection and large expansion of its activities the company has done nothing to reduce its prices. Even consumers who have supported continuance of protection have complained that prices of indigenous products are often higher than that of imported varieties even with the present prohibitive duties. While the company has drawn our attention to the rising trends in costs of raw materials, wages, etc., we have estimated fair ex-works prices having regard to these considerations as well as the actual output of the company, its profit since our last inquiry and its potential to improve its performance. The fair ex-works prices which we have estimated purely for regulation of protection, as in the past, may have to be reasonably marked-up having regard to marketing factors. We would suggest that these considerations may be kept in view if Government should consider it fit to give directive to the company for regulation of future prices in fair relation to costs.

16. Ancillary recommendations.

16.1. Examination of the costs of N.E.I. shows that by far the greater part of H.C.I. steel bars and tubes which comprise the bulk of raw materials, is lost either by way of process loss (turnings and borings) or rejection loss. Such loss is considered by us as abnormally high. The company has not so far made any satisfactory arrangement for the handling of its process or rejection loss. It is installing a plant for handling turnings and borings (process loss) and pressing them in the form of brickets for easier storage and disposal. Defective races used to be disposed of at very cheap prices in the past and some of them also found their way into the hands of small scale producers. The company has stated that subsequent to the last inquiry it has been storing these defective races; however, no steps have been taken to make any suitable use of this expensive material. This is wasteful. We suggest that Government should impress on the company the urgent need to explore, in consultation with owners of electric furnaces, the possibility of converting its scrap arisings into billets. By reducing its losses and by better utilization of its scarp the company would be able to bring down not only the cost of its production but also the drain on foreign exchange resources.

16.2. *Statistics of imports.*—Statistics of imports of ball bearings are recorded in terms of weight and value in the Monthly Statistics of the Foreign Trade of India. Actual numbers of ball bearings imported have to be estimated from the value. This is not satisfactory. In view of the importance of making a correct assessment of the requirements of ball bearings when considering protection it is necessary that imports of ball bearings should be recorded separately in value and numbers. Further, as the indigenous production of thrust ball bearings has also commenced it will be desirable to record the import of this category of ball bearings separately. We, therefore, suggest that arrangements should be made with the Collectors of Customs and the Director General of Commercial Intelligence and Statistics to record the imports of ball thrust bearings under the following additional heads : —

(i) Ball thrust bearings upto 51 mm. (2″) bore diameter.

(ii) Ball thrust bearings over 51 mm. (2″) bore diameter.

and also to exhibit imports of ball bearings and ball thrust bearings in the Monthly Statistics of the Foreign Trade of India in numbers and value.

17. A summary of our conclusions and recommendations is given below :—

Summary of conclusions and recommendations.

(i) National Engineering Industries Ltd., Jaipur still remains the only large-scale producer. Its expansion programme will not eventuate for two more years.

[Paragraph 5.1]

(ii) As against an additional licensed capacity of 11·2 million bearings on double shift not more than 7·1 million is likely to be installed by 1965.

[Paragraph 5.2]

(iii) Actual production of ball bearings in 1961 was 3·23 million and is not likely to rise substantially till 1963-64.

[Paragraph 6.1]

(iv) The domestic demand for ball bearings of protected categories in 1962 is estimated at 8 million pieces and is likely to increase every year at the rate of 20 per cent.

[Paragraphs 7.3 and 7.4]

(v) In view of economy in costs of production and lower wastage of material (which as it is imported involves saving of foreign exchange) greater flexibility should be allowed to producers to switch over from use of H.C.I. bars to H.C.I. tubes for manufacture of bearings.

[Paragraph 8.3]

(vi) Encouragement should be given to the producers by ensuring supply of deep drawing quality M.S. strips for manufacture of cages as this will be more efficient and economical than use of brass.

[Paragraph 8.3]

(vii) To avoid adverse comparisons of its products and justify the substantial fees paid to its foreign collaborator the company should use the mark "licence Hoffmann" on its products.

[Paragraph 9.3]

(viii) N.E.I. should properly enforce statistical quality control and utilize its electronic machines for the purpose for which they were procured.

[Paragraph 9.3]

(ix) A screening of small-scale units by the Development Commissioner, Small Scale Industries is desirable so as to encourage only the development of suitable units—as by and large small units cannot have the facility to make precision products like ball bearings.

[Paragraph 9.4]

(x) The I.S.I. should expedite formulation of standard specifications for ball bearings.

[Paragraph 9.5]

(xi) The N.E.I. should take earnest steps to improve its records of production and process costs in order to exercise better control, effect economies and facilitate determination of costs with accuracy.

[Paragraph 13.1]

(xii) Protection to the ball bearings industry should be continued for a further period of three years ending 31st December 1965 at the existing rate of duty.

[Paragraph 14.3]

(xiii) The blanket extension of protection to sizes of bearings over 51 mm. upto 102 mm. bore diameter is not feasible nor can we anticipate and regulate protection item-wise by sizes of bearings. But as thrust ball bearings of quality over 51 mm. size are now reported to be produced indigenously future imports of such categories may be so regulated as not to discourage this development.

[Paragraph 14.4]

(xiv) The need for N.E.I. to deal fairly and directly with substantial institutional customers so as to avoid unnecessary higher costs to them cannot be over-emphasised.

[Paragraph 15.1]

(xv) There are complaints that despite ten years of protection and large expansion of production prices have not been brought down and are still considerably higher than imported prices. In permitting any mark-up in selling prices, Government may consider this aspect.

[Paragraph 15.2]

(xvi) The company should explore the possibility of getting its scrap arisings from H.C.I. steel which are very heavy, processed for re-use.

[Paragraph 16.1]

(xvii) Imports of ball bearings should be recorded separately in value and numbers instead of value and weight in the Monthly Statistics of the Foreign Trade of India. Import should also be recorded under the additional heads of (i) ball thrust bearings upto 51 mm. bore diameter and (ii) ball thrust bearings over 51 mm. bore diameter.

[Paragraph 16.2]

Acknowledgements. 18. We wish to express our thanks to manufacturers, importers and consumers of ball bearings and the Associations who furnished us detailed information in connection with this inquiry and to their representatives who gave evidence before us.

K. R. P. AIYANGAR,
Chairman.

J. N. DUTTA,
Member.

J. N. SEN GUPTA,
Member.

PRAMOD SINGH,
Secretary.

BOMBAY;
Dated 31*st August*, 1962.

APPENDIX I

[*Vide* Paragraph 3.1]

List of parties to whom the Commissions questionnaires/letters were issued and from whom replies or memoranda were received.

* Indicates that they replied or sent memoranda.

† Indicates that they are not interested.

A. PRODUCERS :

*1. National Engineering Industries Ltd., (Bearing Division), Jaipur (Rajasthan).

*2. The Antifriction Bearings Corporation Ltd., Bhangerwadi, Lonavla.

B. PROSPECTIVE PRODUCERS :

*1. Associated Bearing Co. Ltd., Pandyan House, Frere Road, Bombay-1.

*2. Bharat Ball Bearing Co. Ltd., 20, Ballygunge Park Road, Calcutta-19.

*3. New Haven Steel Ball Corpn. (P) Ltd., Pandyan House, 309, Frere Road, Fort, Bombay-1.

*4. Precision Bearings India Ltd., Wavell House, 15, Graham Road, Ballard Estate, Bombay-1.

*5. Pioneer Bearings, eelamedu, Coimbatore-4.

*6. Indian Bearings Ltd., Shri Ambika Mill Premises, Near Kankaria Loco Side, Ahmedabad-8.

7. Hindustan Ball Bearing Co. Ltd., Chandrasekhar Bhuvan, Agra.

8. New Commercial Bearings Corpn. Ltd., Railwaypura Post, Ahmedabad.

9. Shri M. Ct. Muthieh, Bedford House, Vepery, P. B. No. 2713, Madras.

10. Suessan Textile Ball Bearings & Products (P) Ltd., Baroda.

11. Union Bearing Mfg. Co., Porbandar.

C. SMALL SCALE MANUFACTURERS' ASSOCIATION :

The Ball Bearing Mfr.s' Association, P. O. Goraya (Distt. Jullundur).

D. IMPORTERS :

1. The Central Trading Co., Canning Street, Calcutta-1.

2. Greaves Cotton & Co. Ltd., 1, Forbes Street, Fort, Bombay.

*3. Joshina & Thakker Engineering Stores, Tulsi Falia, Station Road, Surat.

4. Roberts Mclean & Co. Ltd., 31, Netaji Subhas Road, Calcutta-1.

*5. Mcleod & Co. Ltd., Netaji Subhas Road, Calcutta-1.

*6. S.K.F. Ball Bearing Co. Ltd., Mustafa Building, 19, Sir P. M. Road, Fort, Bombay-1.

†7. P. B. Shah & Co. Ltd., 34, Netaji Subhas Road, Calcutta.

*8. C. C. Vaswani & Co., 11, Habib Court, Causeway, Bombay.

†9. William Jacks and Co. Ltd., 16, Netaji Subhas Road, Calcutta-1.

10. Dhirajlal & Co., 15, New Queens Road, Bombay-4.

*11. Kamlashankar P. Joshi Co., 98, Nagdevi Cross Lane, Bombay-3.

12. United Supply Agency Pvt. Ltd., 38, Strand Road, P. B. No. G. P. O. 865, Calcutta-1.

*13. M/s. Calcutta Cycle Supply Co., 11-A, Lall Bazar Street, Calcutta-1.
14. Nariendarnath D. Puri, Mistry House, 25, Parsi Bazar Street, Bombay.
15. Dhirajlal Morarji, 37-A, Sarang Street, (Khokha Bazar), Bombay-3.

E. IMPORTERS' ASSOCIATIONS :

*1. The Mill Gin Stores Merchants' Association, 88/92, Nagdevi Street, Bombay-3.
2. Bharat Chamber of Commerce, Imperial Bank Building, Calcutta.
*3. The All India Ball Bearing Merchants' Association, 524, Sandhurst Road, Sandhurst Building, Bombay-4.

F. CONSUMERS :

*1. Hind Cycles Ltd., 250, Worli, Bombay-18.
*2. T. I. Cycles of India, Ambattur, Near Madras.
*3. Crompton Parkinson (Works) Ltd., Haines Road, Worli, Bombay-18.
4. Jaura Engineering Works, Azad Nagar, Amritsar.
*5. Alcock Ashdown and Co., Defence Works, Mazgaon, Bombay.
*6. Associated Electrical Industries Mfg. Co. Ltd., Crown House, 6, Mission Row, Calcutta-1.
*7. British India Electric Construction Co. Ltd., 6, Mayurbhanj Road Calcutta-23.
*8. Kirloskar Electric Co. Ltd., Post Box No. 1017, Bangalore-3.
*9. Praga Tools Corporation Ltd., Saifabad, Hyderabad (Andhra Pradesh).
10. S. P. Engineering Corporation, 79/7, Latouche Road, Kanpur.
*11. Jyoti Ltd., Post: Chemical Industries, Baroda-3.
*12. Kirloskar Brothers Ltd., Kirloskarvadi, South Satara District.
13. Port Engineering Works Ltd., 8, Clive Row, Calcutta-1.
*14. Tata Iron and Steel Co. Ltd., Bombay House, Bruce Street, Fort, Bombay.
*15. Vasant Industrial & Engineering Works, 'Vasant Vijay', 470-471, Worli, Road, Bombay-18.
16. Hindustan Motors Ltd., 8, Royal Exchange Place, Calcutta.
*17. Simpson & Co. Ltd, 202/203, Mount Road, Madras.
*18. Maharashtra State Road Transport Corporation, Central Stores, S. T. Premises, Bellasis Road, Bombay-8.
*19. B. E. S. T. Undertaking, Electric House, Bombay.
20. Hindustan Aircraft Ltd., Bangalore.
*21. Air India International, Santa Cruz, Bombay-29.
22. Controller of Stores, Northern Railway, The Mall, Delhi.
*23. Controller of Stores, Southern Railway, Perambur, Madras.
*24. Controller of Stores, Western Railway, Churchgate, Bombay.
*25. Chittaranjan Locomotive Works, Chittaranjan, West Bengal State.
*26. Bombay Port Trust, Ballard Estate, Bombay.
*27. Calcutta Fan Works Ltd., 19-B, Chowringhee Road, Calcutta-13.
*28. Stores and Purchase Officer, Machinery Manufacturers' Corporation Ltd., P. 618, Circular Garden, Reach Road, Calcutta-23.
29. National Machinery Manufacturers Ltd., Kalwa, Thana.

4. Delhi Motor Traders' Association, P.O. Box No. 1098, Kashmere Gate, Delhi-1.

*5. The All India Ball Bearing Merchants' Association, 524, Sandhurst Road, Sandhurst Building, Bombay-4.

6. Indian Pumps Mfr.s' Association, India Exchange, India Exchange Place, Calcutta-1.

H. DEALERS :

*1. Associated India Agencies, India Exchange Building, Calcutta-1.

†2. Motor Trade Supply Co., Parekh Mansions, Sardar Patel Road, Bombay-4.

3. Babu & Co., Gheekanta Road, Ahmedabad.

I. RAW MATERIAL SUPPLIERS :

*1. The Superintendent, Metal & Steel Factory, Ichapur-Nawabgunj (West Bengal).

*2. Mukund Iron & Steel Works Ltd., Bombay Agra Road, Kurla, Bombay-70.

†3. Bharatia Electric Steel Co. Ltd., 8, Sminhoe Street, Ballygunge, Calcutta-19.

*4. Man Industrial Corporation Ltd., P.O. Box No. 131, Jaipur (H.O.).

*5. T. I. & M. Sales Pvt. Ltd., 2nd Floor, United Bank of India Building, Sir P. M. Road, G.P.O. Box No. 1308, Bombay-1.

†6. Kamani Tubes Pvt. Ltd., Kamani Chambers, Nicol Road, Bombay.

†7. Devidayal Rolling & Refineries Pvt. Ltd., Tulsiram Gupta Mills Estate, Darukhana, Bombay-10.

J. GOVERNMENT DEPARTMENTS :

(i) CENTRAL GOVERNMENT

*1. The Senior Industrial Adviser, Development Wing, Ministry of Commerce & Industry, Udyog Bhavan, Maulana Azad Road, New Delhi.

*2. The Development Commissioner, Small Scale Industries, Ministry of Commerce and Industry, Udyog Bhavan, Maulana Azad Road, New Delhi.

*3. The Director of Co-ordination & Statistics Director General of Supplies, and Disposals, N.I. Building, Parliament Street, New Delhi.

*4. The Director, Indian Standards Institution, Manak Bhavan, 9, Mathura Road, New Delhi.

*5. The Chief Controller of Imports & Exports, Ministry of Commerce and Industry, Government of India, New Delhi.

*6. The Collector of Customs, Bombay.

*7. The Collector of Customs, Calcutta.

*8. The Collector of Customs, Madras.

*9. The Collector of Customs, Cochin.

*10. The Iron and Steel Controller, Netaji Subhas Road, Calcutta.

*11. The Counsellor (Commercial) to the High Commission of India in the U.K., India House, Aldwych, London, W. C. 2 (England).

*12. The Second Secretary (Commercial) to the Embassy of India, Strandvager, (Gr. Floor) Stockholm (Sweden).

30. Parmar Mechanic Works, Vadi Pura, Surendranagar (Saurashtra).
31. Sewing Machine Parts Making Works, Surendranagar (Saurashtra).
*32. Central India Machinery Manufacturers Ltd., P. B. Birlanagar, Gwalior.
33. Textile Machinery Corporation Ltd., Belgharia.
*34. Textool Company Ltd., Post Box No. 221, Coimbatore.
*35. Textile Equipment Co., 11-A, Sitalfalwadi, Mount Road, Mazgaon, Bombay-10.
36. Ravi Industries Ltd., Nawapada, Bombay Agra Road, Thana.
†37. Indo-Engineering Works, Dr. Annie Besant Road, Opp. Gwalior Palace, Worli, Bombay-18.
*38. Hindustan Textile Engineers, Kamer Building, 38, Cawasji Patel Street, Bombay-1.
*39. The Tata Engineering & Locomotive Co. Ltd., (Automobile Division), Bombay House, Bruce Street, Bombay-1.
*40. Mahindra & Mahindra Ltd., Gateway Building, Apollo Bunder, Bombay-1.
*41. The Standard Motor Products of India Ltd., 29, Mount Road, Madras-6.
*42. The Automobile Products of India Ltd., Agra Road, Bhandup, Bombay.
43. The Controller of Stores, Central Railway, V. T., Bombay.
44. The Indian Sugar & General Engineering Corporation Ltd., Yamuna Nagar, (P. O.), Distt. Ambala.
45. National Electrical Industries, Industrial Estate, Lalbaug, Bombay-12.
*46. Jay Engineering Works Ltd., 183-A, Prince Anwar Shah Road, Dhakuria, Calcutta-31.
*47. India Electric Works Ltd., Diamond Harbour Road, Calcutta-34.
*48. The General Electric Co. of India (Mfg.) Ltd., 68, Taratolla Road, Garden Reach, Calcutta-24.
*49. P. S. G. & Sons, Charity Industrial Institute, Peelamedu P.O., Coimbatore.
50. Clyde Fan Company Private Ltd., Rai Bahadur Road, Behala, Calcutta-34.
*51. Matchwell Electricals (India) Ltd., P.O. Box No. 156, 4/11, Asaf Ali Road, New Delhi.
*52. Bharat Electrical Industries Ltd., 6-A, S.N. Banerjee Road, Calcutta-12.
*53. Motor & Machinery Manufacturers Ltd., 31, Chittaranjan Avenue, Calcutta-12.
*54. Bharat Bijlee Ltd., Udyognagar, Bombay-22.
*55. Godrej & Boyce Mfg. Co. (P) Ltd., Lal Baug, Parel, Bombay.
56. Khira Steel Works (P) Ltd., Ghodbunder Road, Santacruz, Bombay-54.
*57. Heavy Electricals Ltd., Bhopal.
58. Premier Automobiles Ltd., Agra Road, Kurla, Bombay.
*59. W. H. Brady & Co., Ltd., Brady House, Bombay-1.

G. CONSUMERS' ASSOCIATIONS :

*1. The Secretary, Fan Makers' Association of India, India Exchange, India Exchange Place, Calcutta-1.

*2. The Secretary, Indian Electrical Manufacturers Association, India Exchange, Calcutta.

*3. The Secretary, Engineering Association of India, 23, Netaji Subhas Road, Calcutta-1.

*13. The First Secretcry (Commercial) to the Embassy of India, 2017, Massachusetts Avenue, N.W. Washington-8, D. C., U. S. A.

*14. The First Secretary (Commercial) to the Embassy of India in Germany, 262, Koblenzorstrasses, Bonn (West Germany).

*15. The State Trading Corpn. of India Ltd., Post Box No. 79, New Delhi.

16. The Director-General of Commercial Intelligence and Statistics, 1, Council House Street, Calcutta-1.

(ii) STATE GOVERNMENTS

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, SHRINAGAR.
†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, BHUBANESHWAR.
*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]

List of Factories visited by the Commission and its Officers.

Name of the factory	By whom visited	Date of visit
A. LARGE SCALE UNITS:		
1. National Engineering Industries Ltd., Jaipur.	Shri K. R. P. Aiyangar, Chairman.	11-8-1962.
	Shri J. N. Dutta, Member.	28-4-1962.
	Shri Hari Bhushan, Technical Director (E. & M.)	19th to 21st July, 1962.
	Shri P. M. Menon, Cost Accounts Officer.	7th to 19th July 1962.
2. Antifriction Bearings Corporation Ltd., Lonavla.	Shri Hari Bhushan, Technical Director (E. & M.)	13-8-1962.
B. SMALL SCALE UNITS:		
1. Celesco Industries, Delhi.	Shri K. R. P. Aiyangar, Chairman.	13-8-1962.
2. New Bharat Engg. Corporation, Amritsar.	Shri Hari Bhushan, Technical Director (Engineering and Metallurgy).	24-7-1962.
3. Harcharan Singh & Bros., Amritsar.		
4. Manfit Mechanical Works, Amritsar.		
5. Atlas Engineering Works, Amritsar.		
6. N. B. G. Industries, Amritsar.		
7. Sakhvantsingh Belwantsingh, Amritsar.		25-7-1962.
8. Indian Brushware Industries, Jullundur.		
9. Vishwakarma Industries, Goraya.		
10. Kundi Engineering Works, Goraya.		
11. Punj Ball Bearing Industries, Goraya.		25-7-1962.
12. Cresant Engineering Industries, Goraya.		

APPENDIX III

[*Vide* Paragraph 3.4]

List of Persons who attended the Commission's Public Inquiry on 17th August, 1962

A. PRODUCERS:

1. Shri P. D. Bhaiya 2. Shri J. D. Thirani 3. Shri S. F. Booth 4. Shri Dhurka 5. Shri V. R. Kedia 6. Shri L. C. Goyal 7. Shri B. K. Maheshwari	Representing	National Engineering Industries Ltd., Jaipur (Rajasthan).
8. Shri D. S. Gandhi 9. Shri N. J. Mehta 10. Shri A. K. Roy Chowdhury 11. Shri K. K. Singh Khanna 12. Shri T. A. Bhaskaran	,,	The Antifriction Bearings Corporation Ltd., Bhangerwadi Road, Lonavla.

B. PROSPECTIVE PRODUCERS:

1. Shri J. H. Horner	Representing	Associated Bearing Co. Ltd., Pandyan House, Frere Road, Bombay-1.
2. Shri M. K. Joshi 3. Shri M. R. Joshi	,,	Precision Bearings India Ltd., Wavelt House, 15, Graham Road, Ballard Estate, Bombay-1.
4. Shri R. Dayal	,,	Bharat Ball Bearing Co. Ltd., 20-Ballygunge Park Road, Calcutta-19.
5. Shri B. S. Panchal 6. Shri C. M. Desai	,,	Indian Bearings Ltd., Shri Ambica Mills Premises, Near Kankaria Loco Siding, Ahmedabad-8.
7. Shri M. D. Metha 8. Shri B. M. Metha	,,	New Haven Steel Ball Corporation (P) Ltd., Pandyan House, 309, Frere Road, Fort, Bombay-1.

C. IMPORTERS:

1. Shri B. Mattsson 2. Shri H. T. Mirchandani	Representing	The SKF Ball Bearing Co. Private Ltd., Mustafa Building, 19, Sir P.M. Road, Bombay-1.
3. Shri G. C. Mirchandani	,,	Mcleod & Co. Ltd., 3, Netaji Subhas Road, Calcutta-1.
4. Shri D. Morarji	,,	Dhirajlal Morarji, 37-A, Sarang Street, Bombay-3.

5. Shri C. M. Parikh . .	Representing	Muller and Phipps (India) Private Ltd., P.O. Box 773, Queen's Mansions, Bastion Road, Fort, Bombay-1

D. IMPORTERS' ASSOCIATION:

1. Shri A. G. Shah . .	Representing	The Mill Gin Store Merchants' Association, 88/92, Nagdevi Cross Lane, Bombay-3.
2. Shri K. J. Shah . .		

E. CONSUMERS:

1. Dr. J. N. Agarwal . .	Representing	Jay Engineering Works Ltd., 183-A, Prince Anwar Shah Road, Calcutta-31.
2. Shri M. N. Kumta . .	,,	Mahindra and Mahindra Ltd., 5, Ferguson Road, Worli, Bombay-18.
3. Shri H. U. Dada . .	,,	National Electrical Industries Ltd., Lalbaug, Bombay-12.
4. Shri R. K. Udeshi . .	,,	National Machinery Mfrs.' Ltd., Kalwa, Thana.
5. Shri K. J. Zaveri . .	,,	Bharat Bijlee Ltd., Udyog Nagar, Near King's Circle Rly. Station, Bombay-22.
6. Shri M. K. Mantri . .	,,	Maharashtra State Road Transport Corporation, Bellasis Road, Byculla, Bombay-8.
7. Shri S. Miranda . .		
8. Shri T. C. Naik . .	,,	Controller of Stores, Western Railway, Churchgate, Bombay-1.
9. Shri G. B. Mitbander .	,,	B. E. S. & T. Undertaking, Electric House, Bombay-1.

F. CONSUMERS' ASSOCIATION:

1. Shri M. M. Kaul . .	Representing	Fan Makers' Association of India, India Exchange, India Exchange Place, Calcutta-1.
2. Shri V. D. Desai . .	,,	Indian Electrical Mfrs.' Association, India Exchange, Calcutta-1 & Crompton Parkinson Ltd., Bombay.
3. Shri M. Demelo . .	,,	Engineering Association of India, India Exchange, India Exchange Place, Calcutta-1.

4. Shri C. K. Dalal 5. Shri R. T. Shah 6. R. A. Kothari 7. D. C. Malhotra	Representing	The All India Ball Bearing Merchants' Association, 524, Sandhurst Road, Bombay-4.

G. DEALERS:

1. Shri C. G. Shah	Representing	Bharat Trading Co., 71, Nagdevi Cross Lane, Bombay-3.
2. Shri R. A. Patel	,,	Associated Bearing Corporation, 163, Narayan Dhuru Ssreet, Bombay-3.
3. Shri B. M. Mehta	,,	Anil Bearing Stores, 163, Narayan Dhuru St., Bombay-3.
4. Shri C. M. Gaglani	,,	P. Ghelabhai & Co., 27-29, Popat Wadi, Kalbadevi Road, Bombay-2.
5. Shri D. Shah	,,	Associated India Agencies, India Exchange Building, Calcutta-1.

H. RAW MATERIAL SUPPLIERS:

1. Shri R. Rajagopalan	Representing	T. I. & M. Sales Ltd., United Bank of India Bldg., (2nd Floor), Sir P. M. Road, Bombay-1.
2. Shri N. J. Shah 3. Shri S. C. Biswas	,,	Mukand Iron & Steel Works Ltd., Kurla, Bombay-70.

I. GOVERNMENT DEPARTMENTS:

1. Shri S. C. Banerjee	Representing	The Senior Industrial Adviser, Development Wing, Ministry of Commerce and Industry, Udyog Bhavan, Maulana Azad Road, New Delhi.
2. Lt. Col. O. G. Eapen	,,	The Iron and Steel Controller, 33, Netaji Subhas Road, Calcutta-1.
3. Dr. S. L. Sharma	,,	The Development Commissioner, Small Scale Industries, Ministry of Commerce & Industry, Udyog Bhavan, Maulana Azad Road, New Delhi-1.
4. Shri N. G. Pradhan	,,	The Collector of Customs, Bombay.

5. Shri A. B. Rao . .	Representing	Indian Standards Institution, Manek Bhavan, 9, Mathura Road, New Delhi-1.
6. Shri D. S. Godbole . .	,,	The Chief Secretary to the Government of Maharashtra, Bombay.
7. Shri Doshi . . .	,,	The Chief Secretary to the Government of Gujarat, Ahmedabad.

J. OTHERS:

Shri Ranganathan . .	Representing	Ramkrishna & Co., 261, Avinashi Road, Coimbatore.

APPENDIX IV

[*Vide* Paragraph 5.3]

Statement showing names and addresses, installed capacity, production and employment of small scale units manufacturing ball bearings

(Value in Rs.)

Name and address of the unit	Annual rated capacity (Single Shift basis)		PRODUCTION DURING						Investment	Employment	REMARKS
			1960		1961		1962 (Jan.-March)				
	Nos.	Value	Nos.	Value	Nos.	Value	Nos.	Value			
1	2	3	4	5	6	7	8	9	10	11	12
1 Indian Brushware Industries, Old Rly. Road, Jullundur.	60,000	4,50,000	34,100	238,700	40,000	240,000	12,670	76,000	273,300	3	
2 M. L. Sharma & Sons, E/16, Industrial Area, Jullundur.	30,000	2,70,000	14,000	125,000	14,000	125,000	3,000	30,000	255,000	14	
3 K. H. Industries, Hoshiarpur Road, Jullundur.	90,000	9,00,000	...	...	...	...	4,000	40,000	160,000	20	Went into production in Dec. 1961 only.
4 Mehta Bros., Basti Guhan, Jullundur.	37,500	2,40,000	2,662	17,307	3,120	20,300	1,000	6,500	63,500	25	

	1	2	3	4	5	6	7	8	9	10	11	12
5	Janta Artisan Prod. & Industrial Cooperative Society Ltd., Basti Guhan, Jullundur.	22,500	1,35,000	2,522	15,131	1,872	11,232	700	4,200	53,861	24	
6	New Bharat Engg. Corp., Kot Mit Singh, Taran Tarn Road, Amritsar.	30,000	37,500	24,000	30,000	25,600	32,000	6,000	7,500	35,000	8	
7	Harcharan Singh & Bros., Chowk Moni, Amritsar.	7,653*	37,500	2,040*	10,000	2,857*	14,000	1,020*	5,000	30,000	7	
8	Manjit Mechanical Works, Bazar Lohran, Amritsar.	6,122*	30,000	1,709*	8,376	2,448*	12,000	816*	4,000	21,500	9	
9	Punjab Singh Kartar Singh, Chowk Moni, Amritsar.	16,326*	80,000	11,224*	55,000	13,265*	65,000	5,102*	25,000	27,000	11	
10	Atlas Engg. Works, Hall Bazar, Amritsar.	28,800	4,40,000	15,840	25,000	14,000	21,000	7,500	4,000	17,500	8	
11	N. B. G. Industries, Inside Ram Bagh Gate, Amritsar.	37,500	1,42,500	30,000	90,000	35,000	1,05,000	4,500	13,500	34,500	10	
12	J. S. Engg. Works, Near Nishat Cinema, Chatti Wind Gate, Amritsar.	4,500	10,500	...	...	...	...	300	700	20,500	5	Started production in 1962.
13	Krishna Engg. Works, Gurgaon.	10,000	12,000	...	...	2,000	9,800*	...	...	19,000	2	Went into production in Sept. 61. Closed at present.

14	Modern Hall Bearing, G. T. Road, Phillaur.	12,000	36,000	8,000	25,000	8,000	19,000	2,000	4,800	22,000	8
15	Sandesh Foundry Works, Phillaur.	45,000	1,20,000	4,000	8,800	19,000	42,000	6,000	13,000	80,000	30
16	Ryat Mech. Works, Behind Thana, Phillaur.	30,000	90,000	15,000	30,000	21,000	40,000	80,000	16,000	40,000	8
17	Vishvakarama Industries, G. T. Road, Goraya.	12,000	3,00,000	40,000	1,62,000	76,000	2,46,000	N.A.	N.A.	2,95,000	32
18	Gainda Ram & Sons, Rurka Road, Goraya.	60,000	1,50,000	21,000	42,000	28,000	57,000	3,300	6,600	25,000	13
19	Modern Industrial Corpn., Bara Pind Road, Goraya.	7,500	60,000	5,100	40,800	2,600	20,800	1,000	7,000	12,000	6
20	S. K. Engg. Corpn., G. T. Road, Near Bus Stop, Goraya.	18,000	36,000	...	...	11,550	23,000	1,500	3,000	25,000	8
21	Pushap Industries, G. T. Road, Goraya.	15,000	40,000	1,000	3,000	8,000	20,000	2,000	5,000	28,000	8
22	Gurcharan Singh & Sons, Bapa Rai Kalan, Goraya.	75,000	2,00,000	12,000	37,000	12,000	38,000	88,000	9,000	85,000	12
23	Everight Engg. Co., Rurka Road, Goraya.	6,000	12,000	2,000	5,000	3,200	6,500	900	1,800	10,000	4
24	Narsingh Ball Bearing Industries, G. T. Road, Goraya.	30,000	60,000	6,000	15,000	8,000	16,000	2,500	5,000	19,000	9
25	Kundi Engg. Works, G. T. Road, Goraya.	60,000	2,50,000	18,000	90,000	25,000	97,000	6,500	25,000	85,000	26

* Estimated

	1	2	3	4	5	6	7	8	9	10	11	12
26	Mela Ram & Sons, G. T. Road, Goraya.	30,000	1,20,000	5,800	13,500	5,500	18,600	...	...	...	12	
27	Parmjit Engg. Corpn., G. T. Road, Goraya.	30,000	75,000	...	...	...	...	...	...	28,000	14	Recently started.
28	Forward Ball Bearing Co., G. T. Road, Goraya.	15,000	1,00,000	13,000	80,000	12,000	49,000	3,000	10,000	21,000	9	
29	Universal Engg. Co., G. T. Road, Goraya.	45,000	1,00,000	25,000	60,000	20,000	60,000	5,000	15,000	35,000	15	
30	Punj Ball Bearing Industries, G. T. Road, Goraya.	45,000	...	...	...	...	...	...	...	36,000	25	
31	Beli Ram Bhatia & Sons, Goraya.	15,000	73,500*	3,000	14,700*	11,000	49,000*	4,000	19,600*	10,000	6	
32	Bharat Engg. Works, Bopa Rai Kalan, Goraya.	15,000	45,000	4,500	13,000	9,000	27,000	3,000	10,000	30,000	7	
33	Skeco Engg. Co., Rurka Rd., Goraya.	4,500	10,000	...	...	...	...	...	...	...	...	Will shortly undertake production. Already making Lathe.
34	M/s. Metal Perfection Pvt. Ltd., 177/1, Dum Dum Road, Calcutta-21.	50,000	2,45,000*	Nil	Nil	Nil	Nil	Nil	Nil	2,11,000	11	Went into production only in April 1962.
35	M/s. Gelesco Industries, Gali Mir Khan, Darya Ganj, Delhi.	36,000	1,76,400*	21,582	10,5751*	34,519	1,69,143*	9,708	47,569*	1,30,000	11	
36	M/s. Amar Bearing Co., Faridabad.	14,000	68,600*	12,000	58,800	N.A.	N.A.	N.A.	N.A.	44,417	10	

* Estimated.

APPENDIX V

[*Vide* Paragraph 10]

(*i*) *Statement showing summary of import control policy in respect of Ball Bearings for licensing periods from April-September,* 1960 *to April* 1962-*March* 1963.

Description	April-Sept. 1960		Oct. 1960 to March 1961		April-Sept. 1961		Oct. 1961 to March 1962		April 1962 to March 1963	
	No. of Sizes	Quota %	No. of Sizes	Quota %	No. of Sizes	Quota %	No. of Sizes	Quota %	No. of Sizes	Quota %
1	2	3	4	5	6	7	8	9	10	11
(A) *Restricted sizes :*										
Protected										
(i) Upto 1″ and below .	37	2½	37	2½	37	2½	47	2½	51	2½
(ii) Above 1″ and upto and including 2″ . .	53	5	53	5	53	5	80	5	83	5
Non-Protected										
(iii) Above 2″ and upto 3″ bore dia. . . .	9	7½	9	7½	9	7½	9	7½	18	7½
(B) *Non-restricted sizes:*										
Protected										
(i) Upto 1″ . . .	..	40	..	40	..	40	..	40	..	40
(ii) Above 1″ and upto 2″	..	50	..	50	..	50	..	50	..	50
Non-Protected										
(iii) Above 2″ and upto 3″ bore dia. . .	..	50	..	50	..	50	..	50	..	50
(iv) Above 3″ bore dia .	..	100	..	100	..	100	..	100	..	100

APPENDIX V—(*Contd.*)

(ii) Statement showing the Import Control Policy in respect of Ball Bearings for the different licensing periods from April-September, 1960 to April 1962 to March 1963

Part and Serial No. of I. T. C. Schedule	Description	Policy for Established Importers				
		April-September 1960	October 1960 to March 1961	April-September 1961	October 1961 to March 1962	April 1962 to March 1963
1	2	3	4	5	6	7
19 (I)	*Ball Bearings*—					
	(i) Ball bearings of 1" in bore (internal) diameter and below as specified in Appendix 14 (1)	2½% (9)	2½% (9)	2½% (18)	2½% (18)	2½% (18)
	(ii) Ball bearings of 1" in bore (internal) diameter and below other than those specified in Appendix 14 (1) . .	40% (12)	40% (12)	40% (18)	40% (18)	40% (18)
	(iii) Ball bearings above 1" in bore (internal) diameter and upto and including 2" in bore (internal) diameter as specified in Appendix 14(2)	5% (9)	5% (9)	5% (18)	5% (18)	5% (18)
	(iv) Ball bearing above 1" and upto and including 2" in bore (internal) diameter other than those specified in Appendix 14 (2) . . .	50% (12)	50% (12)	50% (18)	50% (18)	50% (18)

(v) Ball bearings above 2″ in bore (internal) diameter upto and including 3″ as specified in Appendix 14 (3) .	7½% (9)	7½% (9)	7½% (18)	7½% (18)	7½% (18)
(vi) Ball bearings above 2″ in bore (internal) diameter upto and including 3″ other than those specified in Appendix 14 (3)	50% (12)	50% (12)	50% (18)	50% (18)	50% (18)
(vii) Ball bearings above 3″ in bore (internal) diameter	100% (12)	100% (12)	100% (18)	100% (18)	100% (18)

The figures in brackets indicate the period of validity of licences (in months).

NOTE.—The following notes (1) to (8) relate to Serial Nos. 19 (I) (i) and 19 (I) (ii) and Notes (9) to (14) to Serial Nos. 19 (I) (iii) and 19 (I) (iv) shown in the above statement.

(1) Licences were issued subject to both quantity and value as limiting factors (the quantity was to be determined by converting the value of the licence at Rs. 1.43 per bearing).

(2) Licences were also issued subject to the condition that the licence holders informed the licensing authorities about the progress of imports.

(3) Notwithstanding anything contained in the general instructions given in the Red Book, the value for which a quota licence was granted was equal to the exact quota entitlement or (i) Rs. 15,000 in the case of item 19 (I) (i) and (ii) Rs. 30,000 in the case of item 19 (I) (ii), whichever was less, subject to a minimum of Rs. 500.

(4) Quota licences for ball bearings were calculated on the basis of half of best year's imports of all bearings of 1″ in bore (internal) diameter and below falling under item 19(I) (i) and 19(I) (ii).

(5) Not more than 15% of the face value of licence could be utilised for the import of any single type ball bearing. In case, however, where the value of the quota licence was Rs. 2,000 or less, ball bearings of any single type could be imported to the extent of 25% of the face value of the licence.

(6) A. U. on an *ad hoc* basis (For item 19(I) (i) only). A. U. licences were issued *ad hoc* to industrial undertakings for their requirements of ball bearings both for manufacturing purposes and for maintenance of plant and equipment (for item 19(I) (ii) only).

(7) Applications for grant of licences for export purposes of finished articles were considered *ad hoc* in consultation with the Development Wing (for item 19(I) (i) only).

(8) Quota licences were not valid for import of bearings Hoffmann Nos. 110, 112, 115, 117, 120, N1025, U110, LS7, S8, S9 or equivalent sizes of other makes (April-Sept. '60 and Oct. '60-March 61 licensing periods only) (for item 19(I) (i) only).

(9) Licences were issued subject to both quantity and value as limiting factors. (The quantity was to be determined by converting the value of the licence at Rs. 3.15 per bearing.)

(10) Licences were also issued subject to the condition that the licence holders informed the licensing authorities about the progress of imports.

(11) Notwithstanding anything contained in the general instructions given in the Red Book, the value for which a quota licence was granted was equal to (i) the exact quota entitlement or Rs. 15,000 whichever was less, subject to a minimum of Rs. 500 in the case of item 19(I) (iii) and (ii) the exact quota entitlement or Rs. 40,000 whichever is less, subject to a minimum of Rs. 500, in the case of item 19(I) (iv).

(12) Quota licences for ball bearings were calculated on the basis of half of best year's imports of ball bearings above 1" in bore (internal) diameter and upto and including 2" in bore (internal) diameter falling under items 19(I) (iii) and 19(I) (iv).

(13) Not more than 15% [item 19(I) (iii)] [10% in the case of item 19(I) (iv)] of the face value of the licence could be utilised for the import of any single type ball bearing. In case, however, where the value of the quota licence was Rs. 2,000 or less, ball bearings of any single type could be imported to the extent of 25% [item 19(I) (iii)] [20% in the case of item 19(I) (iv)] of the face value of the licence.

(14) A. U. licences were issued *ad hoc* to industrial undertakings for their requirements of ball bearings both for manufacturing purposes as well as maintenance of plant and equipment.

NOTE.—In view of the present foreign exchange position, the Government of India have since imposed a general cut of 50 per cent on established importers' quotas [*Vide* Government Notification No. 65-ITC(PN)/62 dated the 8th June, 1962].

APPENDIX V—(*Concld.*)

(*iii*) *Statement showing types of Ball Bearings, the imports of which are restricted during the period April* 1962-*March* 1963

[**Appendix 14 (1) of Red Book**]

RESTRICTED TYPES OF BALL BEARINGS FALLING UNDER S. No. 19/II

Hoffmann No.	SKF No.	Bearing Dimensions		
		Bore	Outside Diameter	Width
A. BALL BEARINGS OF 1″ BORE (INTERNAL) DIAMETER AND BELOW				
DEEP GROOVE SINGLE ROW RADIAL BALL BEARINGS				
	Light Series-Metric Sizes			
110	6200	10 mm	30 mm	9 mm
112	6201	12 mm	32 mm	10 mm
115	6202	15 mm	35 mm	11 mm
117	6203	17 mm	40 mm	12 mm
120	6204	20 mm	47 mm	14 mm
125	6205	25 mm	52 mm	15 mm
	Medium Series-Metric Sizes			
310	6300	10 mm	35 mm	11 mm
312	6301	12 mm	37 mm	12 mm
315	6302	15 mm	42 mm	13 mm
317	6303	17 mm	47 mm	14 mm
320	6304	20 mm	52 mm	15 mm
325	6305	25 mm	62 mm	17 mm
	Light Series-Inch Sizes			
LS 5	RLS 4	1/2″	1 5/16″	3/8″
LS 7	RLS 5	5/8″	1 9/16″	7/16″
LS 8	RLS 6	3/4″	1 7/8″	9/16″
LS 9	RLS 7	7/8″	2″	9/16″
LS 10	RLS 8	1″	2 1/4″	5/8″
	Medium Series-Inch Sizes			
MS 8	RMS 6	3/4″	2″	11/16″
MS 9	RMS 7	7/8″	2 1/4″	11/16″
MS 10	RMS 8	1″	1 1/2″	3/4″
	Light Series-Inch Sizes			
S 3	EE 3	3/8″	7/8″	7/32″
	Narrow Series-Inch Sizes			
S 7	EE 5	5/8″	1 3/8″	9/32″
S 8	EE 6	3/4″	1 5/8″	5/16″
S 9	EE 8	7/8″	1 7/8″	3/8″

All the above bearings with special features such as:—

(1) A groove in the outer ring with or without loose ring in the groove.

(2) A dust shield or plate on one or both sides of the bearings.

(3) Any combination of items (1) and (2) above will be considered as restricted bearing and can only be imported within the quota and conditions prescribed in the Red Book for restricted sizes.

Hoffmann No.	SKF No.	Bearing Dimensions		
		Bore	Outside Diameter	Width
Extra Light Series-Single Thrust Bearings-Inch Sizes				
EW 5/8	B 5	5/8″	1 3/32″	9/32″
EW 3/4	B 6	3/4″	1 5/16″	9/32″
EW 7/8	B 7	7/8″	1 1/2″	3/8″
EW 1	B 8	1″	1 5/8″	3/8″
Extra Light Series-Single Thrust Bearings-Metric Sizes				
	51103	17 mm	30 mm	9 mm
	51104	20 mm	35 mm	10 mm
	51105	25 mm	42 mm	11 mm
Extra Light Series-Single Thrust Bearings-Inch Sizes				
EW 3/4	O 6	3/4″	1 17/32″	5/8″
EW 7/8	O 7	7/8″	1 21/32″	5/8″
EW 1	O 8	1″	1 25/32″	5/8″
Light Series-Single Thrust Bearings-Metric Size				
	51202	15 mm	32 mm	12 mm
	51203	17 mm	35 mm	12 mm
	51204	20 mm	40 mm	14 mm
	51205	25 mm	47 mm	15 mm
Medium Series-Single Thrust Bearings-Metric Size				
	51305	25 mm	52 mm	18 mm
Medium Series-Single Thrust Bearings-Inch Sizes				
MW 3/4	T 6	3/4″	1 9/16″	23/32″
MW 7/8	T 7	7/8″	1 13/16″	3/4″
MW 1	T 8	1″	2″	3/4″
Light Series-Combined Radial and One Directional Thrust Bearings Metric Sizes				
120 ACD	7204	20 mm	47 mm	14 mm
135 ACD	7207	35 mm	72 mm	17 mm
Light Series-Double Row Self-Aligning Ball Bearings-Metric Size				
U 110	1200	10 mm	30 mm	9 mm
Medium Series-Self-Aligning Double Row Ball Journal Bearing-Metric Size				
U 325	1305	25 mm	62 mm	17 mm

Hoffmann No.	SKF No.	Bearing Dimensions		
		Bore	Outside Diameter	Width
Special Bearings-Metric Size				
N 1025	EL 9	9 mm	24 mm	7 mm
Light Series-Double Row Self-Aligning Ball Bearings-Inch Sizes				
ULS 8	RL 6	3/4″	1 7/8″	9/16″
ULS 9	RL 7	7/8″	2″	9/16″
ULS 10	RL 8	1″	2 1/4″	5/8″
Light Series-Double Row Self-Aligning Adapter Bearings-Inch Size				
UT-130-E	1506-E	1″	62 mm	16 mm

N. B.—Catalogue references quoted in the appendix are purely for purposes of identification and no representation from any manufacturer, Indian or foreign, for inclusion of his brand will be entertained.

[Appendix 14 (2)]

S. No. 19(II)

Hoffmann No.	SKF No.	Bearing Dimensions		
		Bore	Outside Diameter	Width
B. BALL BEARINGS ABOVE 1″ IN BORE (INTERNAL) DIAMETER AND UPTO AND INCLUDING 2″ IN BORE (INTERNAL) DIAMETER				
DEEP GROOVE SINGLE ROW RADIAL BALL BEARINGS				
Light Series-Metric Sizes				
140-W (Extended inner)		40 mm	80 mm	18 mm
130	6206	30 mm	62 mm	16 mm
135	6207	35 mm	72 mm	17 mm
140	6208	40 mm	80 mm	18 mm
145	6209	45 mm	85 mm	19 mm
150	6210	50 mm	90 mm	20 mm
Medium Series-Metric Sizes				
330	6306	30 mm	72 mm	19 mm
335	6307	35 mm	80 mm	21 mm
340	6308	40 mm	90 mm	23 mm
345	6309	45 mm	100 mm	25 mm
350	6310	50 mm	110 mm	27 mm
Light Series-Inch Sizes				
LS 11	RLS 9	1 1/8″	2 1/2″	5/8″
LS 12	RLS 10	1 1/4″	2 3/4″	11/16″
LS 12 1/2	RLS 11	1 3/8″	3″	11/16″
LS 13	RLS 12	1 1/2″	3 1/4	3/4″
LS 13 1/2	RLS 13	1 5/8″	3 1/2″	3/4″
LS 14	RLS 14	1 3/4″	3 3/4″	13/16″
LS 14 1/2	RLS 15	1 7/8″	4″	13/16″
LS 15	RLS 16	2″	4″	13/16″
Medium Series-Inch Sizes				
MS 11	RMS 9	1 1/8″	2 13/16″	13/16″
MS 12	RMS 10	1 1/4″	3 1/8″	7/8″
MS 12 1/2	RMS 11	1 3/8″	3 1/2″	7/8″
MS 13	RMS 12	1 1/2″	3 3/4″	15/16″
MS 13 1/2	RMS 13	1 5/8″	4″	15/16″
MS 14	RMS 14	1 3/4″	4 1/4″	1 1/16″
MS 14 1/2	RMS 15	1 7/8″	4 1/2″	1 1/16″
MS 15	RMS 16	2″	4 1/2″	1 1/16″

All the above bearings with special features such as:—

(1) A groove in the outer ring with or without loose ring in the groove.

(2) A dust shield or plate on one or both sides of the bearings.

(3) Any combination of items (1) and (2) above will be considered as restricted bearings and can only be imported within the quota and conditions prescribed in the Red Book for restricted sizes.

Hoffmann No.	SKF No.	Bearing Dimension		
		Bore	Outside Diameter	Width
Light Series Double Row Self-Aligning Ball Bearings-Metric Sizes				
U 130	1206	30 mm	62 mm	16 mm
U 140	1208	40 mm	80 mm	18 mm
U 145	1209	45 mm	85 mm	19 mm
Medium Series-Double Row Self-Aligning Ball Bearings-Metric Size				
U 330	1306	30 mm	72 mm	19 mm
Light Wide Series-Double Row Self-Aligning Ball Bearings-Metric Sizes				
U 140 W	2208	40 mm	80 mm	23 mm
U 145 W	2209	45 mm	85 mm	23 mm
Extra Light Series-Single Thrust Bearings-Metric Sizes				
	51106	30 mm	47 mm	11 mm
	51107	35 mm	52 mm	12 mm
	51108	40 mm	60 mm	13 mm
	51109	45 mm	65 mm	14 mm
	51110	50 mm	70 mm	14 mm
Extra Light Series-Single Thrust Bearings-Inch Size				
EW 1 1/8	EW 1 1/8	1 1/8″	1 3/4″	3/8″
Light Series-Single Thrust Bearings-Metric Sizes				
	51206	30 mm	53 mm	16 mm
	51207	35 mm	62 mm	18 mm
	51208	40 mm	68 mm	19 mm
	51209	45 mm	73 mm	20 mm
	51210	50 mm	78 mm	22 mm
Light Series-Single Thrust Bearings-Inch Sizes				
W 1 1/8	O 09	1 1/8″	1 29/32″	5/8″
W 1 1	O 10	1 1/4″	23/32″	23/32″
W 1 3/8	O 11	1 3/8″	27/32″	23/32″
W 1 1/2	O 12	1 1/2″	2 11/32″	23/32″
W 1 5/8	O 13	1 5/8″	2 15/32″	23/32″
W 1 3/4	O 14	1 3/4″	2 11/16″	3/4″
W 1 7/8	O 15	1 7/8″	2 13/16″	3/4″
W 2	O 16	2″	2 31/32″	3/4″

Hoffmann No.	SKF No.	Bearing Dimensions		
		Bore	Outside Diameter	Width
Medium Series-Single Thrust Bearings-Metric sizes				
	51306	30 mm	60 mm	21 mm
	51307	35 mm	68 mm	24 mm
	51308	40 mm	78 mm	26 mm
	51309	45 mm	85 mm	28 mm
	51310	50 mm	95 mm	31 mm
Medium Series-Single Thrust Bearings-Inch Sizes				
MW 1 1/2	T 12	1 1/2″	2 7/8″	1 1/8″
MW 1 3/4	T 14	1 3/4″	3 5/16″	1 1/4″
MW 2	T 16	2″	3 11/16″	1 3/8″
Heavy Series-Single Thrust Bearings-Metric Size				
	51407	35 mm	80 mm	32 mm
Heavy Series-Single Thrust Bearings-Inch Size				
HW 1 1/2	VH 12	1 1/2″	3 1/2″	1 3/4″
Light Series-Double Thrust Bearings-Metric Size				
	52206	25 mm	52 mm	29 mm
Medium Series-Double Thrust Bearings-Metric Size				
	54308U	30 mm	82 mm	59 mm
Light Series-Double Row Self-Aligning Adapter Bearings-Inch Sizes				
UT 140 E	1508 E	1 1/4″	80 mm	18 mm
UT 145 E	1509 E	1 1/2″	85 mm	19 mm
UT 155 E	1511 E	2″	100 mm	21 mm
Light Wide Series-Double Row Self-Aligning Adapter Bearings-Inch Sizes				
	2508 E	1 1/4″	80 mm	23 mm
	2509 E	1 1/2″	85 mm	23 mm
	2511 E	2″	100 mm	25 mm
Light Series-Double Row Self-Aligning Adapter Bearings-Metric Sizes				
UT 140	1508	35 mm	80 mm	18 mm
UT 145	1509	40 mm	85 mm	19 mm
UT 155	1511	50 mm	100 mm	21 mm

Hoffmann No.	SKF No.	Bearings Dimensions		
		Bore	Outside Diameter	Width
Light Wide Series-Double Row Self Aligning Adapter Bearings-Metric Sizes				
	2508	35 mm	80 mm	23 mm
	2509	40 mm	85 mm	23 mm
	2511	50 mm	100 mm	25 mm
Medium Series-Single Row Angular Contact Ball Bearings-Metric Sizes				
350 ACD	7310	50 mm	110 mm	27 mm
340 ACD	7308	40 mm	90 mm	23 mm
Heavy Series-Single Row Angular Contact Ball Bearings-Metric Size				
545 ACD	7409	45 mm	120 mm	29 mm
Light Series-Double Row Self-Aligning Ball Bearings-Inch Sizes				
ULS 12	RL 10	1 1/4″	2 1/4″	11/16″
ULS 13	RL 12	1 1/2″	3 1/4″	3/4″
ULS 13 1/2	RL 13	1 5/8″	3 1/2″	3/4″
ULS 11	RL 9	1 1/8″	2 1/2″	5/8″

N. B.—Catalogue references quoted in the appendix are purely for purposes of identification and no representation from any manufacturer, Indian or Foreign, for inclusion of his brand will be entertained.

[Appendix 14 (3) of Red Book.]

S. No. 19(II)

Hoffmann No.	SKF No.	Bearing Dimensions		
		Bore	Outside Diameter	Width
BALL BEARINGS ABOVE 2″ BORE (INTERNAL) DIAMETER AND UPTO AND INCLUDING 3″				
Extra Light Series-Single Thrust Bearings-Metric Sizes				
	51111	55 mm	78 mm	16 mm
	51112	60 mm	85 mm	17 mm
	51114	70 mm	95 mm	18 mm
Light Series-Single Thrust Bearings- Metric Size				
	51212	60 mm	95 mm	26 mm
Light Series-Single Thrust Bearings-Inch Size				
W 3	O 24	3″	4 3/8″	1 1/8″
W 2 1/4	O 18	2 1/4″	3 11/32″	7/8″
W 2 1/2	O 20	2 1/2″	3 23/32″	1″
Medium Series-Single Thrust Bearing-Metric Size				
	51312	60 mm	110 mm	35 mm
Medium Series-Single Thrust Bearings-Inch Sizes				
MW 2 1/4″	T 18	2 1/4″	4 1/4″	1 11/16″
MW 2 1/2″	T 20	2 1/2″	4 3/4″	2″
Light Standard Series-Double Row Self-Aligning Adapter Bearings-Inch Sizes				
UT 175E	1515 E	2 1/2″	130 mm	25 mm
UT 185E	1517 E	3″	150 mm	28 mm
Light Wide Series-Double Row Self-Aligning Adapter Bearings-Inch Size				
	2515 E	2½″	130 mm	31 mm
Light Standard Series-Double Row Self-Aligning Adapter Bearings-Metric Size				
UT 175	1515	65 mm	130 mm	25 mm
Light Series-Double Row Self-Aligning Adapter Bearings-Metric Size				
	2515	65 mm	130 mm	31 mm

Hoffmann No.	SKF No.	Bearings Dimensions		
		Bore	Outside Diameter	Width
Light Series-Double Row Self Aligning Ball Bearings-Metric Size				
U 175	1215	75 mm	130 mm	25 mm
Light Wide Series-Double Row Self-Aligning Ball Bearings-Metric Size				
U 175 W	2215	75 mm	130 mm	31 mm
Light Series-Combined Radial and One Directional Thrust Bearing-Metric Size				
160 ACD	7212	60 mm	110 mm	22 mm

N.B.—(1) The dimensions shown against all adapter Ball Bearings as shown in Appendix 14 (2) and (3) are the internal bore of the Sleeves fitted to the bearing and not the internal bore of the bearing without the sleeves. As such, all Adapter Ball Bearings as shown in Appendix 14 (2) and (3) can only be imported within the restricted quota irrespective of the fact whether they are imported with or without the sleeves. The face value of restriction for any single type of Adapter bearings will henceforward deem to apply jointly for both inch sizes and millimeter sizes in case of Adapter Bearings. In other words ceiling under the face value for each size will be a joint ceiling for inch as well as the corresponding millimeter size. This will also apply to non-restricted types of Adapter Ball Bearings.

(2) In addition to the two makes given in the appendices, *viz.*, Hoffmann and SKF ball bearings of other makes falling with the specific sizes and specified types mentioned in the appendices will also be treated as 'restricted' types and will be licensed within the restricted quota.

(3) Catalogue references quoted in the appendix are purely for purposes of Identification and no representation from any manufacturer, Indian or foreign for inclusion of his brand will be entertained.

APPENDIX VI

[*Vide* Paragraph 10]

Statement showing country-wise imports of ball bearings during 1960, 1961 *and* 1962 (*January—May*)

Specifications	1960		1961		1962 (January—May)	
	Quantity (Kg.)	Value (Rs.)	Quantity (Kg.)	Value (Rs.)	Quantity (Kg.)	Value (Rs.)
1	2	3	4	5	6	7
1. Adapter Bearings upto 2″ Bore						
U. K.	559	5,910	926	17,955	2,841	37,848
U. S. S. R.	205	2,384	930	9,415	28	247
Sweden	9,317	100,970	15,040	173,573	3,511	43,087
Germany W.	5,343	63,382	12,599	149,036	3,105	39,734
Germany E.	102	1,210	..	..	..	..
Netherlands	200	2,396	..	..	..	..
Switzerland	1,688	23,531	863	4,264	10	365
Austria	5,895	41,461	1,609	17,942	623	7,633
Czechoslovakia	3,563	18,882	725	10,601	..	..
Japan	153	1,555	..	..	40	467
U. S. A.	614	12,178	300	3,466	304	7,394
Italy	..	..	2,016	16,465	306	3,039
Sm Val Trns	..	..	8,820	91,558	2,365	25,911
TOTAL	27,639	2,73,859	43,828	4,94,275	13,133	1,65,725

2. Ball Bearings upto 2″ bore for motor vehicles						
U. K.	18,878	2,14,169	38,441	2,86,394	11,494	1,88,696
Germany W.	40,169	10,52,185	22,064	6,82,252	14,208	3,73,931
Germany E.	136	1,740	..	..	..	..
France	602	6,098	69	1,172	504	9,711
Italy	15,807	1,83,443	7,776	97,040	1,973	35,699
Austria	1,937	17,165	1,042	11,258	256	3,455
Japan	3,143	26,667	5,427	25,695	529	5,386
Canada	92	2,279	136	4,676	16	891
U. S. A.	12,330	1,86,557	18,352	2,45,109	2,119	39,499
U. S. S. R.	559	1,318	11,882	1,41,083	6,918	74,246
Czechoslovakia	254	1,998	3,682	32,981	1,095	10,956
Denmark	..	..	470	12,413	..	..
Hungary	..	..	107	1,074	..	..
Netherlands	..	..	161	1,759	22	490
Sweden	660	8,040	113	2,174	..	..
Switzerland	..	..	674	16,339	96	901
Sm Val Trns	..	..	10,549	96,761	2,140	25,816
Poland	..	..	..	..	2,252	32,542
TOTAL	94,567	17,01,659	120,935	16,58,180	43,622	8,02,219

1	2	3	4	5	6	7
3. Ball Bearings upto 1" bore NES						
U. K.	11,832	2,18,754	19,738	3,01,146	13,169	2,16,596
U.S.S.R.	15,849	1,20,619	5,084	66,524	43,594	1,50,240
Sweden	5,629	1,01,012	16,482	3,05,766	5,827	1,17,752
Norway	79	1,906	..	..	..	..
Germany W.	22,220	3,97,916	21,812	3,48,943	8,976	1,56,002
Germany E.	152	1,072	..	..	..	..
France	254	4,339	525	7,009	..	..
Italy	28,017	5,58,278	38,010	5,38,355	12,966	1,88,556
Austria	5,237	62,163	35,084	5,26,537	5,583	65,468
Czechoslovakia	7,380	54,107	7,382	1,07,840	5,545	1,17,506
Japan	662	4,303	10,534	71,099	13,065	1,03,790
U.S.A.	2,730	44,026	2,699	47,626	1,162	22,976
Poland	..	..	2,313	41,005	..	..
Denmark	..	662	..	..	..	..
Switzerland	305	5,985	547	9,701	301	2,803
Swaziland	51	1,005	..	..	..	..
Australia	457	4,627	..	..	294	2,774
Belgium	..	..	125	1,241	..	..
Netherlands	..	..	120	1,347	..	..
Sm Val Trns	..	..	53,486	5,45,034	19,663	2,05,173
TOTAL	1,00,854	15,80,774	2,13,941	29,19,173	1,30,145	13,49,636

4. Ball Bearings over 1″ to 2″ bore NES

U.K.	29,861	4,14,631	58,002	7,56,155	38,031	4,48,527
U.S.S.R.	43,867	3,82,199	50,036	5,09,087	37,557	2,51,375
Sweden	22,972	2,46,380	30,570	3,25,968	17,639	2,20,140
Norway	51	4,292	..	..	..	..
Germany W.	83,174	12,27,095	94,011	16,98,817	42,242	6,64,668
Germany E.	819	9,795	..	..	..	..
Belgium	307	7,939	..	..	3	84
France	1,148	15,127	92	7,002	1,000	18,699
Switzerland	3,704	38,880	1,960	24,597	227	2,776
Italy	42,188	5,44,600	40,842	5,57,087	11,164	1,41,751
Austria	27,728	2,74,349	21,282	2,14,836	10,225	1,01,073
Czechoslovakia	19,591	1,86,678	9,835	78,686	7,665	1,00,377
Singapore	205	1,826	..	..	..	..
Japan	10,128	75,666	18,725	1,54,014	8,548	84,888
U.S.A.	10,531	2,41,119	12,247	1,79,946	6,130	1,06,143
Australia	2,181	15,792	252	2,749	301	5,651
Poland	..	..	985	15,913	1,230	11,405
China	356	2,402	..	..	..	..
Netherlands	711	2,645	..	..	7	195
Canada	..	269	..	..	..	..
Hungary	..	..	612	8,043	..	..
Sm Val Trns	..	..	84,969	8,61,476	31,500	3,32,922
TOTAL	2,99,522	36,91,684	4,24,420	53,88,376	2,13,469	24,90,674
GRAND TOTAL	5,22,582	72,47,976	8,03,124	104,60,004	4,00,369	48,08,254

APPENDIX VII

[*Vide* Paragraph 14.1]

Statement showing the c. i. f. prices and landed costs of imported ball bearings

(Per bearing)

	Source of information	Origin of import	Date of import	c. i. f. price (Rs.)	Customs duty (Rs.)	Clearing charges (Rs.)	Landed cost (Rs.)
	1	2	3	4	5	6	7
	110						
1	Collector of Customs, Bombay	Austria	27-2-62	1.43	1.36	0.14	2.93
2	Collector of Customs, Madras	Austria	28-2-62	1.43	95%	About 1%	2.85
3	Collector of Customs, Calcutta	Sweden	..	1.25	1.20	0.01	2.46
4	Mcleod & Co. Ltd., Calcutta	U. K.	1960-61	1.53	95%	2%	3.02
5	The SKF Ball Bearing Co. (Pvt.) Ltd., Bombay . .	Sweden	1960-61	1.10	95%	2½%	2.17
6	K. P. Joshi & Co., Bombay	..	..	1.20	95%	2%	2.36
7	The All-India Ball Bearing Merchants' Association, Bombay.	European Countries	1961	0.95	95%	2%	1.90
8	The Mill Gin Store Merchants' Association, Bombay .	Germany	..	1.36	95%	5%	2.72
		Austria	..	1.44	95%	5%	2.88

	112						
1	Collector of Customs, Bombay	Austria	26-3-62	1.43	1.36	0.14	2.93
2	Collect of Customs, Madras	U. K.	26-2-62	1.55	95%	About 1%	3.07
3	Collector of Customs, Calcutta	Sweden	..	1.35	1.30	0.01	2.66
4	Mcleod & Co., Calcutta	U. K.	1960-61	1.53	95%	2%	3.02
5	The SKF Ball Bearing Co., Bombay	Sweden	1960-61	1.18	95%	2½%	2.33
6	K. P. Joshi & Co., Bombay	..	..	1.25	95%	2%	2.46
7	The Calcutta Cycle Supply Co.	U S.S.R.	..	1.11	95%	2%	2.22
8	The All-India Ball Bearing Merchants' Association . .	European Countries	1961	0.95	95%	2%	1.80
9	The Mill Gin Store Merchants' Association, Bombay .	Germany	..	1.42	95%	5%	2.84
		Austria	..	1.44	95%	5%	2.88
	115						
1	Collector of Customs, Bombay	Austria	7-4-62	1.43	1.36	0.14	2.93
2	Collector of Customs, Madras	U. K.	26-2-62	1.73	95%	About 1%	3.41
3	Collector of Customs, Calcutta	Sweden	..	1.40	1.33	0.02	2.75
4	Mcleod & Co., Calcutta.	U K.	1960-61	1.69	95%	2%	3.36
5	The SKF Ball Bearing Co.	Sweden	,,	1.24	95%	2½%	2.45
6	K. P. Joshi & Co.	..	..	1.28	95%	2%	2.52

1		2	3	4	5	6	7
7	Calcutta Cycle Supply Co.	U.S.S.R.	..	1.78	95%	2%	3.56
8	All-India Ball Bearing Merchants' Assn.	European Countries	1961	1.05	95%	2%	2.00
9	The Mill Gin Store Merchants' Assn., Bombay. . .	Germany	..	1.53	95%	5%	3.06
		Austria	..	1.44	95%	5%	2.88
	117						
1	Collector of Customs, Bombay	Austria	7-4-62	1.53	1.45	0.15	3.13
2	Collector of Customs, Calcutta	Sweden	..	1.51	1.45	0.02	2.98
3	Collector of Customs, Madras	Austria	28-2-62	1.52	95%	About 1%	3.00
4	Collector of Customs, Cochin	U.S.S.R.	26-12-61	1.12	1.07	0.04	2.23
5	Mcleod & Co., Calcutta.	U. K.	1960-61	1.89	95%	2%	3.74
6	The SKF Ball Bearing Co.	Sweden	1960-61	1.33	95%	2½%	2.63
7	K. P. Joshi & Co.	..	..	1.35	95%	2%	2.66
8	The Calcutta Cycle Supply Co.	U.S.S.R.	..	2.67	95%	2%	5.22
9	The All-India Ball Bearing Merchants' Association. .	European Countries	1961	1.21	95%	5%	2.32
10	The Mill Gin Store Merchants' Association, Bombay .	Germany	..	1.65	95%	5%	3.30
		Austria	..	1.53	95%	5%	3.06

	120						
1	Collector of Customs, Bombay	Sweden	4-4-62	1.58	1.50	0.15	3.23
2	Collector of Customs, Calcutta	Sweden	..	1.87	1.79	0.02	3.68
3	Collector of Customs, Madras	U.K.	26-2-62	2.34	95%	About 1%	4.80
4	Collector of Customs, Cochin	U.S.S.R.	26-12-61	1.58	1.50	0.06	3.14
5	Mcleod & Co., Calcutta	U.K.	1960-61	2.31	95%	2%	4.57
6	The SKF Ball Bearing Co.	Sweden	1960-61	1.64	95%	2½%	3.24
7	K. P. Joshi & Co.	..	..	1.60	95%	2%	3.17
8	The All-India Ball Bearing Merchants' Association	European Countries	1961	1.42	95%	2%	2.74
9	The Mill Gin Store Merchants' Association, Bombay	Germany	..	1.98	,,	5%	3.96
		Austria	..	1.82	,,	,,	3.64
	125						
1	The Collector of Customs, Bombay	Sweden	4-4-62	1.74	1.65	0.17	3.56
2	The Collector of Customs, Calcutta	,,	July, 1961	2.02	1.93	0.02	3.97
3	The Collector of Customs, Madras	Austria	28-2-62	1.95	95%	About 1%	3.86
4	The Collector of Customs, Cochin	U.S.S.R.	26-12-61	2.00	1.90	0.08	3.98
5	Mcleod & Co., Ltd.	U.K.	1960-61	2.78	95%	2%	5.53
6	The SKF Ball Bearing Co.	Sweden	,,	1.80	,,	2½%	3.55

1	2	3	4	5	6	7
7 K. P. Joshi & Co.	..	..	1.74	,,	2%	3.44
8 The All-India Ball Bearing Merchants' Association . .	European Countries	1961	1.68	,,	2%	3.25
9 The Mill Gin Store Merchants' Association, Bombay .	Germany	..	2.25	,,	5%	4.50
	Austria	..	1.95	,,	,,	3.90
130						
1 The Collector of Customs, Bombay.	Sweden	4-4-62	2.41	2.29	0.23	4.93
2 The Collector of Customs, Calcutta	,,	..	2.77	2.65	0.03	5.45
3 Mcleod & Co. Ltd.	U.K.	1960-61	3.28	95%	2%	6.53
4 The SKF Bearing Co.	Sweden	,,	2.46	,,	2½%	4.86
5 K. P. Joshi & Co.	..	..	2.17	,,	2%	4.28
6 The All-India Ball Bearing Merchants' Association . .	European Countries	1961	2·05	,,	,,	4.00
7 The Mill Gin Store Merchants' Association, Bombay .	Germany	..	3.26	,,	5%	6.52
	Austria	..	2.43	,,	,,	4.86
135						
1 The Collector of Customs, Bombay.	U.S.S.R.	9-4-62	2.47	2.35	0.24	5.06
2 The Collector of Customs, Calcutta	Sweden	..	2.68	2.56	0.03	5.27

3	The Collector of Customs, Cochin	U.S.S.R.	26-12-61	2.70	2.56	0.10	5.36
4	Mcleod & Co. Ltd.	U.K.	1960-61	3.56	95%	2%	7.08
5	The SKF Ball Bearing Co.	Sweden	,,	2.94	,,	2½%	5.80
6	K. P. Joshi & Co.	..	..	2.65	,,	2%	5.22
7	The All-India Ball Bearing Merchants' Association	European Countries	1961	2.47	,,	,,	4.85
8	The Mill Gin Store Merchants' Association, Bombay	Germany	..	4.02	,,	5%	8.04
		Austria	..	2.96	,,	,,	5.92

140

1	The Collector of Customs, Bombay	Sweden	4-4-62	3.28	3.12	0.32	6.72
2	The Collector of Customs, Calcutta	Sweden	...	3.78	3.61	0.05	7.44
3	The Collector of Customs, Cochin	U.S.S.R.	26-12-61	3.19	2.94	0.12	6.16
4	Mcleod & Co., Calcutta	U.K.	1960-61	4.19	95%	2%	8.35
5	The SKF Ball Bearing Co.	Sweden	,,	3.39	,,	2½%	6.69
6	K. P. Joshi & Co.	..	..	3.17	,,	2%	6.25
7	All-India Ball Bearing Merchants' Association	European Countries	1961	2.89	,,	,,	5.70
8	The Mill Gin Store Merchants' Association, Bombay	Germany	..	4.95	,,	5%	9.90
		Austria	..	3.63	,,	,,	7.26

1		2	3	4	5	6	7
	145						
1	The Collector of Customs, Bombay	U.S.S.R.	9-4-62	3.66	3·48	0.36	7.50
2	The Collector of Customs, Calcutta	Sweden	..	4.88	4.66	0.07	9.61
3	Mcleod & Co.	U.K.	1960-61	4.67	95%	2%	9.29
4	The SKF Ball Bearing Co.	Sweden	,,	4.38	,,	2½%	8.65
5	K. P. Joshi & Co.	..	..	3.59	,,	2%	7.10
6	The All-India Ball Bearing Merchants' Association .	European Countries	1961	3.66	,,	,,	7.22
7	The Mill Gin Store Merchants' Association, Bombay .	Germany	..	5.60	,,	5%	11.20
		Austria	..	4.01	,,	,,	8.02
	150						
1	The Collector of Customs, Bombay	Sweden	19-3-62	5.78	5.49	0·56	11.83
2	The Collector of Customs, Calcutta	,,	..	5.33	5.11	0.09	10.53
3	Mcleod & Co.	U. K.	1960-61	5.61	95%	2%	11.18
4	The SKF Ball Bearing Co.	Sweden	,,	4.76	,,	2½%	9.40
5	K. P. Joshi & Co.	..	..	4.41	,,	2%	8.70
6	All-India Ball Bearing M. Assn.	European Countries	1961	4.16	,,	,,	8.22

7	The Mill Gin Store M. Assn.	Germany	..	6.14	,,	5%	12.28
		Austria	..	4.94	,,	,,	9.88
	310						
1	The Collector of Customs, Bombay.	U.S.S.R.	23-3-62	1.03	0.98	0.10	2.11
2	The Collector of Customs, Calcutta	Sweden	July, 1961	1.41	1.35	0.02	2.78
3	The SKF Ball Bearing Co.	,,	1960-61	1.26	95%	2½%	2.49
4	K. P. Joshi & Co.	..	..	1.30	,,	2%	2.57
5	All-India Ball Bearing M. Assn.	European Countries	1961	1.16	,,	,,	2.22
6	The Mill Gin Store M. Assn.	Germany	..	1.68	,,	5%	3.36
		Austria	..	1.53	,,	,,	3.06
	312						
1	The Collector of Custo ms, Bombay	Sweden	19-3-62	1.30	1.23	0.13	2.66
2	The Collector of Customs, Calcutta	,,	..	1.54	1.48	0.02	3.04
3	The SKF Ball Bearing Co.	,,	1960-61	1.35	95%	2½%	2.66
4	K. P. Joshi & Co.	..	..	1.35	,,	2%	2·66
5	The All-India Ball Bearing M. Assn.	European Countries	1961	1.21	,,	,,	2.32
6	The Mill Gin Store M. Assn.	Germany	..	1.74	,,	5%	3.48
		Austria	..	1.53	,,	,,	3.06

1	2	3	4	5	6	7
315						
1 The Collector of Customs, Bombay	U. S. S. R.	22-3-62	1.15	1.09	0.11	2.35
2 The Collector of Customs, Calcutta	Sweden	..	1.67	1.60	0.02	3.29
3 Mcleod & Co.	U. K.	1960-61	2.00	95%	2%	3.98
4 The SKF Ball Bearing Co.	Sweden	,,	1.40	,,	2½%	2.76
5 K. P. Joshi & Co.	..	..	1.36	,,	2%	..
6 All-India Ball Bearing M. Assn.	European Countries	1961	1.21	,,	,,	2.32
7 The Mill Gin Store M. Assn.	Germany	..	1.87	,,	5%	3.74
	Austria	..	1.53	,,	,,	3.06
317						
1 The Collector of Customs, Bombay	U.S.S.R.	22-3-62	1.35	1.28	0.13	2.76
2 The Collector of Customs, Calcutta	Sweden	..	1.92	1.84	0.02	3.78
3 Mcleod & Co.	U. K.	1960-61	2.42	95%	2%	4.79
4 The SKF Ball Bearing Co.	Sweden	,,	1.73	,,	2½%	3.42
5 K. P. Joshi & Co..	..	..	1.65	,,	2%	3.35
6 All-India Ball Bearing M. Assn.	European Countries	1961	1.42	,,	,,	2.74

7	The Mill Gin Store M. Assn.	Germany	..	2.12	,,	5%	4.24
		Austria	..	1.95	,,	,,	3.90
	320						
1	The Collector of Customs, Bombay	Sweden	4-4-62	1.93	1.83	0.19	3.95
2	The Collector of Customs, Calcutta	,,	July, 1961	2.23	2.13	0.03	4.39
3	The Collector of Customs, Madras	Austria	28-2-62	2.04	95%	About 1%	4.05
4	Mcleod & Co.	U. K.	1960-61	2.53	,,	2%	5.62
5	The SKF Ball Bearing Co.	Sweden	,,	1.99	,,	2%	3.93
6	K. P. Joshi & Co.	U.S.S.R.	May, 1961	1.84	,,	2%	3.63
7	The Calcutta Cycle Supply Co.	,,	..	1.78	94%	6%	3.56
8	The All-India Ball Bearing M. Assn. . . .	European Countries	1961	1.68	95%	2%	3.25
9	The Mill Gin Store M. Assn.	Germany	..	2.40	,,	5%	4.80
		Austria	..	2.05	,,	,,	4.10
	325						
1	The Collector of Customs, Bombay	Sweden	4-4-62	2.48	2.36	0.24	5.08
2	The Collector of Customs, Calcutta	Sweden	Sept.'61	2.88	2.75	0.03	5.66
3	The Collector of Customs, Madras	U.S.S.R.	24-1-62	2.05	95%	About 1%	4.05
4	Mcleod & Co.	U. K.	1960-61	3.39	,,	2%	6.74

1		2	3	4	5	6	7
5	The SKF Ball Bearing Co.	Sweden	1960-61	2.56	95%	2½%	5.05
6	K. P. Joshi & Co.	,,	..	2.17	,,	2%	4.25
7	The Calcutta Cycle Supply Co.	U.S.S.R.	..	2.17	94%	6%	4.34
8	The All-India Ball Bearing M. Assn.	European Countries	1961	2.05	95%	2%	4.00
9	The Mill Gin Store M. Assn.	Germany	..	3.26	,,	5%	6.52
		Austria	..	2.43	,,	,,	4.86
	330						
1	The Collector of Customs, Bombay	Sweden	4-4-62	3.10	2.94	0.30	6.34
2	The Collector of Customs, Calcutta	,,	..	3.58	3.42	0.05	7.05
3	Mcleod & Co.	U. K.	1960-61	3.92	95%	2%	7.77
4	The SKF Ball Bearing Co.	Sweden	,,	3.20	,,	2½%	6.32
5	K. P. Joshi & Co.	,,	..	2.89	,,	2%	5.69
6	The Calcutta Cycle Supply Co.	U.S.S.R.	..	2.78	94%	6%	5.56
7	The All-India Ball Bearing M. Assn.	European Countries	1961	2.63	95%	2%	5.15
8	The Mill Gin Store M. Assn.	Germany	..	4.68	,,	5%	9.36
		Austria	..	3.25	,,	,,	6.50

	335						
1	The Collector of Customs, Bombay	Sweden	4-4-62	3.72	3.53	0.36	7.61
2	The Collector of Customs, Calcutta	,,	..	4.40	4.21	0.07	8.68
3	Mcleod & Co.	U. K.	1960-61	4.78	95%	2%	9.51
4	The SKF Ball Bearing Co.	Sweden	,,	3.76	,,	2½%	7.42
5	Joshi & Thakker Engg.	Germany	1961	5.27	,,	..	10.38
6	K. P. Joshi & Co.	..	..	3.55	,,	2%	7.00
7	The Calcutta Cycle Supply Co.	U.S.S.R.	..	3.34	94%	6%	6.68
8	The All-India Ball Bearing M. Assn. . . .	European Countries	1961	3.16	95%	2%	6.22
9	The Mill Gin Store M. Assn.	Germany	..	5.76	,,	5%	11.52
		Austria	..	4.11	,,	,,	8.22
	340						
1	The Collector of Customs, Bombay.	Sweden	4-4-62	5.13	4.87	0.50	10.50
2	The Collector of Customs, Calcutta	,,	..	5.94	5.69	0.09	11.72
3	Mcleod & Co.	U. K.	1960-61	5.94	95%	2%	11.83
4	The SKF Ball Bearing Co.	Sweden	,,	5.30	,,	2½%	10.46
5	Joshi & Thakker Engg.	Germany	1961	6.66	,,	..	13.12
6	K. P. Joshi & Co.	..	..	4.48	,,	2%	8.83

1	2	3	4	5	6	7
7 The All-India Ball Bearing M. Assn.	European Countries	1961	4.42	95%	2%	8.75
8 The Mill Gin Store M. Assn.	Germany	..	7.28	,,	5%	14.56
	Austria	..	5.02	,,	,,	10.04
345						
1 The Collector of Customs, Bombay	Austria	4-4-62	7.36	6.99	0.72	15.07
2 The Collector of Customs, Calcutta.	Sweden	..	7.31	7.00	0.12	14.43
3 Mcleod & Co.	U. K.	1960-61	8.11	95%	2%	16.16
4 The SKF Ball Bearing Co.	Sweden	1960-61	6.55	,,	2½%	12.93
5 K. P. Joshi & Co.	..	..	5.96	,,	2%	11.84
6 The All-India Ball Bearing M. Assn.	European Countries	1961	5.42	,,	,,	10.75
7 The Mill Gin Store M. Assn.	Germany	..	8.91	,,	5%	17.82
	Austria	..	7.38	,,	,,	14.76
350						
1 The Collector of Customs, Bombay	Austria	3-4-62	8.79	8.35	0.86	18.00
2 The Collector of Customs, Calcutta	Sweden	..	8.63	8.26	0.14	17.03
3 Mcleod & Co.	U. K.	1960-61	9.92	95%	2%	19.73

4	The SKF Ball Bearing Co.	Sweden	,,	7.74	,,	2½%	15.28
5	K. P. Joshi & Co.	..	..	7.30	,,	2%	14.38
6	The All-India Ball Bearing M. Assn.	European Countries	1961	6.64	,,	,,	13.18
7	The Mill Gin Store M. Assn.	Germany	..	10.50	,,	5%	21.00
		Austria	..	8.82	,,	,,	17.64
	S. 3						
1	The Collector of Customs, Calcutta	Sweden	..	1.16	1.12	0.02	2.30
2	Mcleod & Co.	U. K.	1960.61	1.53	95%	2%	3.02
3	The SKF Ball Bearing Co.	,,	,,	1.16	,,	2½%	2.29
4	K. P. Joshi & Co.	..	..	..	..	..	..
5	All India Ball Bearing M. Assn.	European Countries	1961	1.25	95%	2%	2.40
6	The Mill Gin Store M. Assn.	Germany	..	1.25	,,	5%	2.50
	S. 7						
1	The Collector of Customs, Bombay	U. K.	9-3-1962	0.76	0.72	0.07	1.55
2	The Collector of Customs, Calcutta	Sweden	..	1.27	1.22	0.02	2.51
3	Mcleod & Co.	U. K.	1960–61	1.75	95%	2%	3.46
4	The SKF Ball Bearing Co.	,,	1960–61	1.37	95%	2½%	2.70

1		2	3	4	5	6	7
5	The All-India Ball Bearing M. Assn.	European Countries	1961	1.50	95%	2%	2.90
6	The Mill Gin Store M. Assn.	Germany	..	1.57	95%	5%	3.14
	S. 8						
1	The Collector of Customs, Bombay	U.K.	19-1-62	2.99	2.84	0.29	6.12
2	The Collector of Customs, Calcutta	Sweden	..	1.50	1.43	0.02	2.95
3	Mcleod & Co.	U. K.	1960-61	1.94	95%	2%	3.86
4	The SKF Ball Bearing Co.	U. K.	1960-61	1.59	95%	2½%	3.14
5	The All-India Ball Bearing M. Assn.	European Countries	1961	1.62	95%	2%	3.04
6	The Mill Gin Store M. Assn.	Germany	..	1.78	95%	5%	3.56
	S. 9						
1	The Collector of Customs, Calcutta	Sweden	..	1.78	1.71	0.02	3.51
2	Mcleod & Co.	U. K.	1960-61	2.28	95%	2%	4.54
3	The SKF Ball Bearing Co.	U. K.	1960-61	1.81	95%	2½%	3.57
4	The All-India Ball Bearing M. Assn.	European Countries	1961	2.12	95%	2%	4.14
5	The Mill Gin Store M. Assn.	Germany	..	2.03	95%	5%	4.06

	U. 110						
1	The Collector of Customs, Bombay	Switzerland	27-11-61	1.86	1.77	0.18	3.81
2	The Collector of Customs, Calcutta.	Sweden	..	1.80	1.62	0.02	3.44
3	The SKF Ball Bearing Co.	Sweden	1960-61	1.63	95%	2½%	3.22
4	K. P. Joshi & Co.	..		1.45	95%	2%	2.85
5	The All-India Ball Bearing M. Assn.	European Countries	1961	1.31	95%	2%	2.52
6	The Mill Gin Store M. Assn.	Germany		2.03	95%	5%	4.06
		Austria		1.68	95%	5%	3.36
	U. 140						
1	The Collector of Customs, Calcutta	Sweden	..	5.50	5.26	0.08	10.84
2	The SKF Ball Bearing Co.	Sweden	1961-61	4.83	95%	2½%	9.53
3	K. P. Joshi & Co.	..	..	4.16	95%	2%	8.26
4	The All-India Ball Bearing M. Assn.	European Countries	1961	3.79	95%	2%	7.48
5	The Mill Gin Store M. Assn.	Germany		5.21	95%	5%	10.42
		Austria		4.65	95%	5%	9.30
	LS. 5						
1	The Collector of Customs, Bombay . . .	U. K.	23-3-62	1.31	1.24	0.13	2.68
2	The Collector of Customs, Calcutta	Sweden	..	1.33	1.26	0.02	2.61

1	2	3	4	5	6	7
3 Mcleod & Co.	U. K.	1960-61	1.61	95%	2%	3.20
4 The SKF Ball Bearing Co.	,,	1960-61	1.26	95%	2½%	2.49
5 K. P. Joshi & Co.	..	..	1.43	95%	2%	2.85
6 The All-India Ball Bearing M. Assn.	European Countries	1961	1.40	95%	2%	2.70
7 The Mill Gin Store M. Assn.	Germany		1.59	95%	5%	3.18
	Austria		1.44	95%	5%	2.88
LS. 7						
1 The Collector of Customs, Bombay	Austria	4-4-62	1.53	1.45	0.15	3.13
2 The Collector of Customs, Calcutta	Sweden	..	1.67	1.60	0.02	3.29
3 Mcleod & Co.	U. K.	1960-61	1.78	95%	2%	3.52
4 The SKF Ball Bearing Co.	,,	1960-61	1.53	95%	2½%	3.02
5 K. P. Joshi & Co.	..	..	1.52	95%	2%	3.04
6 The All-India Ball Bearing M. Assn.	European Countries	1961	1.50	95%	2%	2.90
7 The Mill Gin Store M. Assn.	Germany	..	1.78	95%	5%	3.56
	Austria		1.53	95%	5%	3.06

	LS. 8						
1	The Collector of Customs, Bombay	Austria	6-4-62	1.91	1.81	0.19	3.91
2	The Collector of Customs, Calcutta	Sweden	..	2.17	2.08	0.03	4.28
3	The Collector of Customs, Madras	W. Germany	31-1-62	2.22	95%	about 1%	4.38
4	Mcleod & Co.	U. K.	1960–61	2.31	95%	2%	4.57
5	The SKF Ball Bearing Co.	,,	1960–61	1.98	95%	2½%	3.91
6	K. P. Joshi & Co.	Austria	June 61	1.81	95%	2%	3.61
7	The All-India Ball Bearing M. Assn.	European Countries	1961	1.85	95%	2%	3.60
8	The Mill Gin Store M. Assn.	Germany		2.20	95%	5%	4.40
		Austria		1.81	95%	5%	3.62
	LS. 9						
1	The Collector of Customs, Bombay	Austria	2-4-62	1.88	1.79	0.18	3.85
2	The Collector of Customs, Calcutta	Sweden	..	2.36	2.26	0.03	4.65
3	Mcleod & Co.	U. K.	1960–61	2.42	95%	2%	4.79
4	The SKF Ball Bearing Co.	,,	1960–61	2.17	95%	2½%	4.28
5	K. P. Joshi & Co.	..	1960–61	1.95	95%	2%	3.82
6	The All-India Ball Bearing M. Assn.	European Countries	1961	1.92	95%	2%	3.74
7	The Mill Gin Store M. Assn.	Germany		1.78	95%	5%	3.56
		Austria		1.95	95%	5%	3.90

1	2	3	4	5	6	7
L.S. 10						
1 The Collector of Customs, Bombay.	Austria	6-4-62	2.44	2.32	0.24	5.00
2 The Collector of Customs, Calcutta.	Sweden	..	2.70	2.58	0.03	5.31
3 The Collector of Customs, Madras.	U. K.	6-2-62	2.86	95%	about 1%	5.68
4 Mcleod & Co.	U. K.	1960–61	2.86	95%	2%	5.69
5 The SKF Ball Bearing Co.	U. K.	1960–61	2.58	95%	2½%	5.09
6 K. P. Joshi & Co.	Austria	June 61	2.33	95%	2%	4.72
7 The All-India Ball Bearing M. Assn.	European Countries	1961	3.05	95%	2%	6.00
8 The Mill Gin Store M. Assn.	Germany		2.88	95%	5%	5.76
	Austria		2.44	95%	5%	4.88
L.S. 11						
1 The Collector of Customs, Bombay	Austria	4-4-62	2.44	2.32	0.24	5.00
2 The Collector of Customs, Calcutta	Sweden	..	3.42	3.27	0.05	6.74
3 Mcleod & Co.	U. K.	1960–61	3.81	95%	2%	7.56
4 The SKF Ball Bearing Co.	U. K.	1960–61	3.13	95%	2%	6.18
5 K. P. Joshi & Co.	Austria	June 61	2.43	95%	2%	4.80

6	The All-India Ball Bearing M. Assn.	European Countries	1961	2.12	95%	2%	4.14
7	The Mill Gin Store M. Assn.	Germany		3.15	95%	5%	6.30
		Austria		2.44	95%	5%	4.88
	L.S. 12						
1	The Collector of Customs, Bombay	Austria	4-4-62	2·97	2·82	0·29	6·08
2	The Collector of Customs, Calcutta	Sweden	..	3·94	3·77	0·05	7·76
3	Mcleod & Co.	U.K.	1960/61	3·72	95%	2%	7·42
4	The SKF Ball Bearing Co.	U.K.	1960/61	3·63	95%	2½%	7·17
5	K. P. Joshi & Co.	..	..	2·95	95%	2%	6·17
6	The All-India Ball Bearing M. Assn. . . .	European Countries	1961	2·59	95%	2%	5·08
7	The Mill Gin Store M. Assn.	Germany		4·24	95%	5%	8·48
		Austria	..	2·95	95%	5%	5·90
	L.S. 13						
1	The Collector of Customs, Bombay	Austria	4-4-62	4·01	3·81	0·39	8·21
2	The Collector of Customs, Calcutta	Sweden	..	5·46	5·23	0·09	10·78
3	Mcleod & Co.	U.K.	1960/61	4·67	95%	2%	9·29
4	The SKF Ball Bearing Co.	U.K.	1960/61	4·97	95%	2½%	9·81

1	2	3	4	5	6	7
5 K. P. Joshi & Co.	..	..	4·00	95%	2%	8·00
6 The All-India Ball Bearing M. Assn.	European Countries	1961	3·50	95%	2%	6·90
The Mill Gin Store M. Assn.	Germany	..	5·32	95%	5%	10·64
	Austria	..	4·00	95%	5%	8·00
M.S. 8						
1 The Collector of Customs, Bombay . . .	Austria	28-2-62	2·20	2·09	0·21	4·50
The Collector of Customs, Calcutta . . .	Sweden	..	2·57	2·46	0·03	5·06
3 Mcleod & Co.	U.K.	1960/61	2·67	95%	2%	5·19
4 The SKF Ball Bearing Co.	U.K.	1960/61	2·35	95%	2½%	4·64
5 K. P. Joshi & Co.	..	..	2·19	95%	2%	4·37
6 The All-India Ball Bearing M. Assn.	European Countries	1961	2·15	95%	2%	4·20
7 The Mill Gin. Store M. Assn.	Germany	2·71	2·71	95%	5%	5·42
	Austria	..	2·20	95%	5%	4·40
M.S. 9						
e Collector of Customs, Bombay	Austria	3-4-62	2·33	2·21	0·23	4·77
2 The Collector of Customs, Calcutta	Sweden	..	2·86	2·73	0·03	5·62

3	Mcleod & Co.	U.K.	1960/61	2·94	95%	2%	5·86
4	The SKF Ball Bearing Co.	U.K.	1960/61	2·62	95%	2½%	5·17
5	K. P. Joshi & Co.	..	..	2·43	95%	2%	4·84
6	The All-India Ball Bearing M. Assn.	European Countries	1961	2·39	95%	2%	4·68
7	The Mill Gin Store M. Assn.	Germany	..	3·20	95%	5%	6·40
		Austria	..	2·40	95%	5%	4·80
	M.S. 10						
1	The Collector of Customs, Bombay	Austria	27-3-62	2·53	2·40	0·25	5·18
2	The Collector of Customs, Calcutta	Sweden	..	3·64	3·48	0·25	7·17
3	The Collector of Customs, Madras	U.K.	26-2-62	3·38	95%	about 1%	6·50
4	Mcleod & Co.	U.K.	1960/61	3·39	95%	2%	6·74
5	The SKF Ball Bearing Co.	U.K.	1960/61	3·33	95%	2½%	6·57
6	K. P. Joshi & Co.	Austria	June 1961	2·71	95%	2%	5·40
7	The All-India Ball Bearing M. Assn.	European Countries	1961	2·67	95%	2%	5·25
8	The Mill Gin Store M. Assn.	Germany	..	3·96	95%	5%	7·92
		Austria	..	2·72	95%	5%	5·44

1	2	3	4	5	6	7
M.S. 11						
1 The Collector of Customs, Bombay	Austria	4-4-62	3·25	3·09	0·32	6·66
2 The Collector of Customs, Calcutta	Sweden	..	4·79	4·58	0·07	9·44
3 Mcleod & Co.	U.K.	1960/61	4·14	95%	2%	8·23
4 The SKF Ball Bearing Co.	U.K.	1960/61	4·42	95%	2½%	8·73
5 Joshina & Thakker Engg.	Germany	1960	4·69	95%	..	9·24
6 K. P. Joshi & Co.	..	..	3·24	95%	2%	6·46
7 The All-India Ball Bearing M. Assn. . . .	European Countries	1961	2·83	95%	2%	5·55
8 The Mill Gin Store M. Assn.	Germany	..	4·83	95%	5%	9·66
	Austria	..	3·25	95%	5%	6·50
M.S. 12						
1 The Collector of Customs, Bombay	Austria	4-4-62	4·01	3·81	0·39	8·21
2 The Collector of Customs, Calcutta	Sweden	..	3·94	3·77	0·05	7·76
3 Mcleod & Co.	U.K.	1960/61	4·94	95%	2%	9·84
4 The SKF Ball Bearing Co.	U.K.	1960/61	5·10	95%	2½%	10·07
5 K. P. Joshi & Co.	..	..	4·00	9 %	10·07	3.00

6	The All-India Ball Bearing M. Assn.	European Countries	1961	4·50	95%	2%	8·90
7	The Mill Gin. Store M. Assn.	Germany	..	5·93	95%	5%	11·86
		Austria	..	4·03	95%	5%	8·06
	M.S. 12½						
1	The Collector of Customs, Bombay	Austria	4-4-62	5·69	5.41	0·56	11·66
2	The Collector of Customs, Calcutta	Sweden	..	7·76	7·42	0·12	15·30
3	Mcleod & Co.	U.K.	1960/61	6·00	95%	2%	11·95
4	The SKF Ball Bearing Co.	U.K.	1960/61	6·52	95%	2½%	12·87
5	K. P. Joshi & Co.	..	..	5·67	95%	2%	11·35
6	The All-India Ball Bearing M. Assn. . . .	European Countries	1961	4·98	95%	2%	9·85
7	The Mill Gin. Store M. Assn.	Germany	..	6·85	95%	5%	13·70
		Austria	..	5·70	95%	5%	11·40
	N. 1025						
1	The Collector of Customs, Bombay	Czechoslo-vakia	10-4-62	1·11	1·06	0·11	2·28
2	The All-India Ball Bearing M. Assn.	European Countries	1961	0·95	95%	2%	1·80
3	The Mill Gin Store M. Assn.	Germany	..	1·15	95%	5%	2·30

1		2	3	4	5	6	7
	U.T. 140E						
1	The Collector of Customs, Bombay	Sweden	19-3-62	4·93	4·69	0·48	10·10
2	The Collector of Customs, Calcutta	Sweden	..	8·43	8·07	0·14	16·64
3	Mcleod & Co.	U.K.	1960/61	9·17	95%	2%	18·26
4	The SKF Ball Bearing Co.	Sweden	1960/61	7·59	95%	2½%	14·98
5	K. P. Joshi & Co.	..	..	6·33	95%	2%	12·56
6	The Mill Gin Store M. Assn.	Germany	..	8·07	95%	5%	16·14
		Austria	..	7·10	95%	5%	14·20
	U.T. 145E						
1	The Collector of Customs, Bombay	Sweden	19-3-62	5·37	5·10	·54	11·01
2	The Collector of Customs, Calcutta	Sweden	..	9·22	8·83	0·16	18·21
3	Mcleod & Co., Calcutta	U.K.	1960/61	10·11	95%	2%	20·15
4	The SKF Ball Bearing Co.	Sweden	1960/61	8·31	95%	2½%	16·40
5	Joshina & Thakker Engg.	Germany	1961	8·70	95%	..	17.13
6	K. P. Joshi & Co.	..	..	6·84	95%	2%	13·58
7	The Mill Gin Store M. Assn.	Germany	..	9·00	95%	5%	18·00
		Austria	..	7·60	95%	5%	15·20

U.T. 155E

1	The Collector of Customs, Bombay	Sweden	19-3-62	6·95	6·60	0·68	14·23
2	The Collector of Customs, Calcutta	Sweden	..	11·73	11·23	0·20	23·16
3	Mcleod & Co., Calcutta	U.K.	1960/61	13·06	95%	2%	26·02
4	The SKF Ball Bearing & Co.	Sweden	1960/61	10·53	95%	2½%	20·79
5	Joshina & Thakker Engineering Stores	Germany	1961	11·08	95%	..	21.82
6	K. P. Joshi & Co.	..	..	8·85	95%	2%	17·44
7	The Mill Gin Store M. Assn.	Germany		11·42	95%	5%	22·84
		Austria	..	11·00	95%	5%	22·00

NOTE.—The prices furnished by the All-India Ball Bearings Merchants' Association and the Mill Gin Store Merchants' Association are ruling c.i.f. prices.

GIPN—S. 3—11 T. C. Bom/62—12-3-63—500


सत्यमेव जयते