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GOVERNMENT OF INDIA

TARIFF COMMISSION

Report On
The Fair Retention Prices, Ex-Works, of Pig Iron Produced by the Indian Iron and Steel Co. Ltd., Calcutta

BOMBAY, 1956

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2—4 T. C. Bom.

GOVERNMENT OF INDIA

MINISTRY OF COMMERCE & INDUSTRY

New Delhi, the 20th July, 1956

RESOLUTION

No. SC(A)-2(133).—In their Resolution No. SC(A)-2(72)/51, dated 30th July, 1951 the Government of India fixed the retention prices of foundry pig iron payable to the Indian Iron and Steel Co. Ltd., for a period of 3 years from 1-8-51. On 18th June, 1954, the Company requested that since their costs were higher than those estimated by the late Tariff Board, an increase of Rs. 25/- per ton in their retention prices might be allowed from 1-4-1954. Government thereupon referred the matter to the Tariff Commission and requested the Commission to recommend retention prices payable to the Company from 1-8-1954 for as long a period as possible.

2. The Tariff Commission have now submitted their Report. Their main conclusions and recommendations are given below :—

(a) The Production of Pig Iron of Indian Iron and Steel Company, may be estimated at 200,000 tons per annum.

(b) The average future works cost of all grades of Pig Iron is estimated at Rs. 109·23 per ton.

(c) The future overhead charges has been estimated at Rs. 27·31 per ton of pig iron. In arriving at this figure as at the previous enquiry, Rs. 24 lakhs for depreciation (11 lakhs normal and 13 lakhs special) has been provided.

(d) The differential in works costs and overheads due to changes in grade of metal produced is estimated at Rs. 5/- per ton.

(e) The existing manganese differential and sulphur penalty should be allowed to continue.

(f) The ex-works fair retention prices should be as given below to be effective from 1st August, 1954 to 31st March, 1960.

Grade		Analysis				Ex-works price recommended for the future
		Silicon per cent	Manganese per cent	Phosphorous per cent	Sulphur per cent	
1		2	3	4	5	6
		STANDARD GRADES (*High Manganese*)				(Rs. per ton)
Standard Foundry	1	2·75—3·25	1·00—1·50	Under 0·40	Under 0·035	148
	2	2·25—2·75	Do.	Do.	Under 0·050	143
	3	1·75—2·25	Do.	Do.	Do.	138
	4	1·50—1·75	Do.	Do.	Do.	135·5

1		2	3	4	5	6
Special	4x.	1.25—1.50	1.00—1.50	Under 0.35	Under 0.050	133
Special Basic Standard . .		1.00—1.25	Do.	Do.	Do.	130·5
		1.00 & Under	Do.	Do.	Do.	128
		(*Low Manganese Grades*)				
Low Manganese Foundry	1 .	2.75—3.25	0.50—1.00	Under 0.40	Under 0.035	14
	2 .	2.25—2.75	Do.	Do.	Under 0.050	141
	3 .	1.75—2.25	Do.	Do.	Do.	136
	4 .	1.50—1.75	Do.	Do.	Do.	133·5
Special	4x.	1.25—1.50	Do.	Under 0.35	Do.	131
Low Manganese basic special .		1.00—1.25	Do.	Do.	Do.	128·5
Low Manganese basic . .		1.00 & Under	Do.	Do.	Do.	126

3. The Government of India have accepted all the recommendations of Tariff Commission and have decided to fix the ex-works retention prices as above from 1-8-1954 to 31-12-1955. As regards the prices from 1-1-56 to 31-3-1960, the Government of India notice that in arriving at the above prices, the Tariff Commission have allowed normal and special depreciation at the same level as at the 1951 enquiry but considering the fact that the Gross Value of the Kulti Block is only Rs. 219 lakhs and the depreciation allowed upto 1951 and the normal depreciation from the period 1951 to 1960 will aggregate to Rs. 189 lakhs, Government of India have decided that special depreciation need be allowed upto 1955 only, as by that time the entire value of the block would be covered by depreciation and special depreciation. From 1-1-56 therefore, the above prices of all categories of pig iron would be less by Rs. 6-8-0 per ton on the average.

4. The selling prices will continue to be on ex-port basis, until 11-6-56 *i.e.* when uniform sale prices were enforced and will be Rs. 15/- per ton over and above the ex-works retention prices. The element of Rs. 15/- granted towards freight disadvantage will be subject to adjustment with the Equalisation Fund.

ORDER

ORDERED that a copy of this Resolution be communicated to all concerned and that it be published in the *Gazette of India*, Extraordinary, Part I, Section 1, dated the 21st July, 1956.

N. SUBRAHMANYAN,

Joint Secretary to the Government of India.

REPORT ON FAIR RETENTION PRICES, EX-WORKS, OF PIG IRON PRODUCED BY THE INDIAN IRON & STEEL CO. LTD., CALCUTTA

Reference to the Commission

1. The ex-works retention prices for different categories of pig iron were fixed for a period of 3 years commencing from 1st July, 1951—*vide* Government Resolution No. SC(A)-2(72)/51, dated 30th July 1951. An increase of Rs. 10 per ton was made from 16-6-1952 to cover the increase in railway freight on raw materials. The above prices were due for revision from 1st August, 1954. The Indian Iron & Steel Co. Ltd. in their letter, dated 1st June, 1954, requested Government that as their works cost had increased an interim increase of Rs. 25 per ton should be sanctioned with effect from 1st April, 1954.

2. Government in their letter No. SC(A)-2(133)/54, dated 18th August, 1954, requested the Commission to examine the question of retention prices payable to the Company for as long a period as possible and forward its recommendations to Government in due course. In the same letter Government wanted to know whether the freight disadvantage allowed to the Company was higher than what was justified on the basis of the actual freight incurred by the Company during the 3-year period ending 31st July, 1954. As the freight disadvantage was not intended to be a source of profit to the Company, Government requested the Commission to take into account the extra benefit that might have accrued to the Company on account of the freight disadvantage and to recommend whether there was any justification for the increase in the retention prices of the Company as requested by them. As the Government wanted to know in advance of the Commission's main recommendation whether the allowance for freight disadvantage has been a source of profit to the Company, the Commission in its letter No. TC/ID/P-2 (pig), dated 2nd December, 1954, informed the Government that on an average the Company has been obtaining a net gain of Rs. 2·77 per ton of production.

Changes in the Works

3. As compared to 1951, there have been some major changes in the works. In 1951, the Company was operating 4 coke oven batteries at Kulti. Since then 2 of the batteries have become obsolete and at present only 2 batteries are in commission. The sulphuric acid plant is also closed down. Further the company is now obtaining electricity from the Damodar Valley Corporation, while in 1951 it was generating its own power.

Examination of costs

4. The Senior Cost Accounts Officer examined the cost of production of pig iron for the period April to December, 1954.

Cost of production

5. The works cost during April/December, 1954 was Rs. 112·12 per ton as against Rs. 83·29 per ton in 1951. The break-up of the works cost is given below :—

	1951	1954	Increase over 1951	Increase as per cent.
	Rs.	Rs.	Rs.	
Net material cost	59·67	82·81	23·14	38·78
Above material cost	23·62	29·31	5·69	24·09
Total . .	83·29	112·12	28·83	34·61

It will be seen from the above statement that as compared to 1951 the works cost has increased by Rs. 28·83 per ton or by 34·61 per cent., of which the net material cost accounted for Rs. 23·14 per ton and the above material cost by Rs. 5·69 per ton. The increase in the net material cost is due to (a) higher consumption of material, (b) higher cost of raw material and (c) increase in railway freight. The incidence of each of these on per ton of pig iron is given below :—

	Rs. per ton
Increase in net material cost—	
(a) Increase due to higher consumption	7·17
(b) Increase due to increase in cost of the material	10·26
(c) Actual increase due to revision of railway freight	5·64
Total . .	23·07
Lower credit for scrap and gas	0·07
Total increase .	23·14

(a) *Higher consumption of material.*

The two items, the consumption of which has gone up, are coke and scrap. The consumption of coke has increased to 3,025 lbs. from the 1951 estimate of 2,650 lbs. per ton of pig iron, while the scrap consumption has increased to 127 lbs. from 50 lbs. in 1951. The effect of the higher consumption of coke on cost is Rs. 5·91 per ton. The reasons attributed for the higher consumption of coke are (1) the age and condition of the plant, (2) the absence of gas cleaning facilities and (3) the continued production of foundry iron, particularly high silicon grade. This was discussed with the Deputy Iron & Steel Controller. According to him, for a variation of 0·5% silicon content, consumption of coke will vary to the extent of 5%. On this basis, the consumption of coke at Kulti should be 2,480 lbs. with an ash content of 20% per ton of iron. The ash content of coke available at Kulti is, however, higher by 2 to 3%. If a reasonable allowance is given for this factor, the consumption of coke will be about 2,650 lbs. per ton of iron. Further, the age and condition of the plant cannot be ignored. At Kulti, gas cleaning facilities are also not available. Taking all these factors into consideration the consumption of coke for the future can be taken at 2,950 lbs. per ton of iron as

against the 3,100 lbs. claimed by the Company from their experience of the last three years. The increase in cost due to the higher consumption of scrap is Rs. 1·71 per ton of iron while there has been a small saving in the consumption of iron ore (Re. 0·02), limestone (Re. 0·50) and other materials (Re. 0·13).

(b) *Increase in the cost of materials.*

There have been increases in the costs of iron ore both in the Company's own raising as well as purchases from outside. The purchase price of limestone, also, has shown an increase over that estimated in 1951.

The cost of production of coke at the Kulti coke ovens has increased by about Rs. 5 per ton on account of (i) lower output, (ii) increases in salaries & wages, repairs and maintenance and general works expenses and (iii) lower credit for by-products, although the rate per ton of coal has been lower by about Re. one per ton during 1954.

The raising cost of iron ore has increased from Rs. 5·63 in 1951 to Rs. 8·38 per ton in 1954. Its effect on cost of iron is Rs. 4·68 per ton. Similarly the cost of coke exclusive of the freight element has increased from Rs. 29·88 to Rs. 34·41 per ton. Its effect on the cost of iron is Rs. 5·43. The cost of limestone has also gone up by Re. 0·25 per ton of iron. There has been a reduction of Re. 0·10 in the cost of other materials per ton of iron.

(c) *Increase in freight.*

The incidence of the increase in railway freight on iron ore is Rs. 6·03 per ton and that on limestone is Rs. 2·09 per ton of iron. The incidence of the increase in railway freight on coal is not fully reflected in the cost of coke. This was due to the fact that at the time of the last inquiry the company was expected to use 2,26,000 tons of coke produced at Kulti and only 3,732 tons of Hirapur coke. During April/December, 1954 only 86,382 tons of Kulti coke were used as against 1,59,428 tons of Hirapur coke. Hirapur coke was charged at the control price for which there was no increase consequent to the increase in the railway freight on coal. As a result, the incidence of railway freight on coke has declined by Rs. 2·44 per ton of iron.

Above meterial cost

6. The above material cost per ton of iron has increased by Rs. 5·69. This is partly due to the surplus labour the company has to carry consequent upon the closure of the two coke oven batteries, sulphuric acid plant and its own power generating plant and also due to the increased expenditure on turbo blower (Rs. 1·27 per ton), repairs and maintenance (Rs. 1·17 per ton) and general works expenses (Rs. 2·81 per ton).

Future cost

7. In estimating the cost for the future the production of pig iron is taken at 2,00,000 tons per annum as in 1951. The consumption of all the raw materials has been maintained almost at the same level as that obtained during April/December, 1954 except for (1) the reduction of scrap charge and the corresponding credit by 77 lbs. and

43 lbs. per ton respectively and (2) the limitation of coke consumption to 2,950 lbs. per ton of iron. In regard to the cost of materials, the average rates during April/December, 1954 (excluding the opening stock adjustment) have been adopted. Other expenses have been allowed on the basis of the actuals for April/December, 1954. The average cost of all grades of pig iron, thus worked out, comes to Rs. 109·23 per ton as against Rs. 112·12 per ton in 1954 and Rs. 83·29 per ton in 1951. This represents a reduction of Rs. 2·89 per ton from the actuals of April/December, 1954 and an increase of Rs. 15·94 per ton over the 1951 estimate.

Overheads

8. (a) Depreciation.—In 1951 the Board allowed Rs. 24 lakhs (Rs. 11 lakhs normal and Rs. 13 lakhs special) for depreciation. The same amount has been allowed for the future.

(b) Interest on working capital.—As the works cost has increased by about 31 per cent., the requirements of working capital have also been correspondingly increased and the interest at 4½ per cent. worked out on that comes to Rs. 4·82 lakhs.

(c) Head Office Expenses.—As in 1951 Rs. 3 lakhs have been provided for head office expenses.

(d) Return on block.—In 1951, the value of the block was estimated at Rs. 219 lakhs. As it has been decided by Government since then that the colliery block should be treated as an integral part of the Company's works, an amount of Rs. 23 lakhs has to be added to the 1951 block and a reduction to the extent of Rs. 7 lakhs has to be made due to the closure of two coke oven batteries, sulphuric acid plant and the power generating plant. After these adjustments, the net block comes to Rs. 235 lakhs. On this block, a return of 8 per cent. has been allowed which works out to Rs. 18·80 lakhs.

(e) Contingencies.—In the 1951 report a provision of Rs. 2 per ton was estimated to cover contingencies. The same rate has been provided on the present occasion also. The following table summarises the various items allowed under overheads :—

	Rs. in lakhs
(i) Return on block of Rs. 235 lakhs at the rate of 8 per cent	18·80
(ii) Depreciation	24·00
(iii) Head Office Expenses	3·00
(iv) Interest on working capital	4·82
(v) Contingencies	4·00
TOTAL	54·62

Overhead charges as estimated above and distributed over a production of 2,00,000 tons of pig iron works out to Rs. 27·31 per ton as against Rs. 25·90 per ton, which had been allowed in the previous inquiry. As at the previous inquiry the average estimated works cost and overheads of foundry iron was assumed to represent the cost for Grade No. III (1·75 per cent. to 2·25 per cent. silicon) of a mixture of irons of high and low manganese.

9. Taking Grade No. III as the standard, the consumption of coke per ton of product will increase by about 5 per cent. for every increase of silicon by 0·50 per cent. Conversely, there will be corresponding decrease in coke consumption for similar decrease of silicon in the product. As the total consumption of coke per unit time is relatively constant, the production will decrease by about 5 per cent. for every increase of 0·50 per cent. in the silicon analysis.

10. Both the works cost and the overheads are effected by the grade of metal produced. The variation in coke consumption affects the material cost element in the works costs. A decreased or increased production rate alters both the works costs and overheads. As regards works costs, the cost of coke per ton of iron of Grade No. III (1·75 per cent. to 2·25 per cent. silicon) in the future estimate has been taken at Rs. 45·81. The differential in coke costs for each change of 0·50 per cent. silicon accordingly works out to be approximately Rs. 2·29 per ton. The conversion cost, exclusive of pig casting machine expense, of Grade No. III iron has been estimated at Rs. 26·39. The conversion cost can be considered to vary almost in inverse proportion to the production rate. The differential in conversion cost, accordingly, may be taken at approximately Rs. 1·32 per ton for every change of 0·50 per cent. in silicon content. The total differential in works costs for each change of 0·50 per cent. in silicon works out to Rs. 3·61 (*i.e.*, coke consumption Rs. 2·29 and conversion cost Rs. 1·32).

The overheads per ton of Grade No. III iron comes to Rs. 27·31. The differential in overheads due to changed production rates amounts to Rs. 1·37 per ton for every change of 0·50 per cent. silicon. The total differential works out to Rs. 4·98 per ton which is rounded off to Rs. 5. This figure may be taken as the proper differential in price for each change from the base grade of 0·50 per cent. silicon. In 1951, the differential was Rs. 4 per ton. The proposed increase in differential is due to the higher consumption and cost of coke and increase in works cost.

As regards the manganese differential and sulphur penalty the existing position has been allowed to continue. On the basis of the analysis given above, the following formula should be adopted for the pig iron price schedule :—

Base Grade—Standard Foundry Iron Grade No. III

Analysis	Silicon	1·75 per cent to 2·25 per cent.
	Sulphur	Under 0·050 per cent.
	Manganese	1.00 per cent to 1·50 per cent
	Phosphorus	Under 0·40 per cent.
Silicon differential		Rs. 5 per ton for each increase or decrease of 0·50 per cent from base grade.
Manganese differential		Rs. 2 per ton for each increase or decrease of 0·50 per cent from base grade.
Sulphur penalty		Rs. 2 per ton for off-grade sulphur to a maximum of 0·065 per cent., Rs. 5 per ton for off-grade sulphur between 0·066 per cent and 0·080 per cent., and Rs. 10 per ton for all off-grade above 0·080 per cent.

These schedules supply to all grades of iron with the exception that the differential for silicon are not to apply to iron below 1·00 per cent. silicon.

Schedule of ex-works retention prices.

11. Based on the formula for differentials as laid down in the preceding paragraph, we recommend the retention prices, ex-works, for different grades of pig iron as given below to be effective from 1st August, 1954 to 31st March, 1960. For purposes of comparison, the current ex-works price and the amount of increase are also given side by side :—

(Rs. per ton.)

Grade		Analysis				Ex-works price recommended for the future	Current ex-works price (including increase in Rly. freight at Rs. 10 per ton)	Increase
		Silicon per cent	Manganese per cent	Phosphorus per cent	Sulphur per cent			
1		2	3	4	5	6	7	8
				STANDARD GRADES				
				(*High Manganese*)				
Standard Foundry	1	2·75—3·25	1·00—1·50	Under 0·40	Under 0·035	148	128	20
	2	2·25—2·75	Do.	Do.	Under 0·050	143	124	19
	3	1·75—2·25	Do.	Do.	Do.	138	120	18
	4	1·50—1·75	Do.	Do.	Do.	135·5	118	17·5
Special . .	4X	1·25—1·50	Do.	Under 0·35	Do.	133	116	17
Special basic . .		1·00—1·25	Do.	Do.	Do.	130·5	114	16·5
Standard basic . .		1·00 & Under	Do.	Do.	Do.	128	112	16
				LOW MANGANESE GRADES				
Low Manganese Foundry .	1	2·75—3·25	0.50—1.00	Under 0·40	Under 0·035	146	126	20
	2	2·25—2·75	Do.	Do.	Under 0·050	141	122	19
	3	1·75—2·25	Do.	Do.	Do.	136	118	18
	4	1·50—1·75	Do.	Do.	Do.	133·5	116	17·5

1	2		3		4		
Special . . 4x.	1.25—1.50	0.50—1.00	Under 0.35	Under 0·050	131	114	17
Low Manganese basic special . .	1.00—1.25	Do.	Do.	Do.	128·5	112	16·5
Low Manganese basic	1.00 & Under	Do.	Do.	Do.	126	110	16

K. R. DAMLE,
Chairman.

S. K. MURANJAN,
Member.

S. K. BOSE,
Secretary.

BOMBAY,
Dated 8th February, 1956.

GIPN—S2—4 T. C. Bombay.—28-9-56—600.