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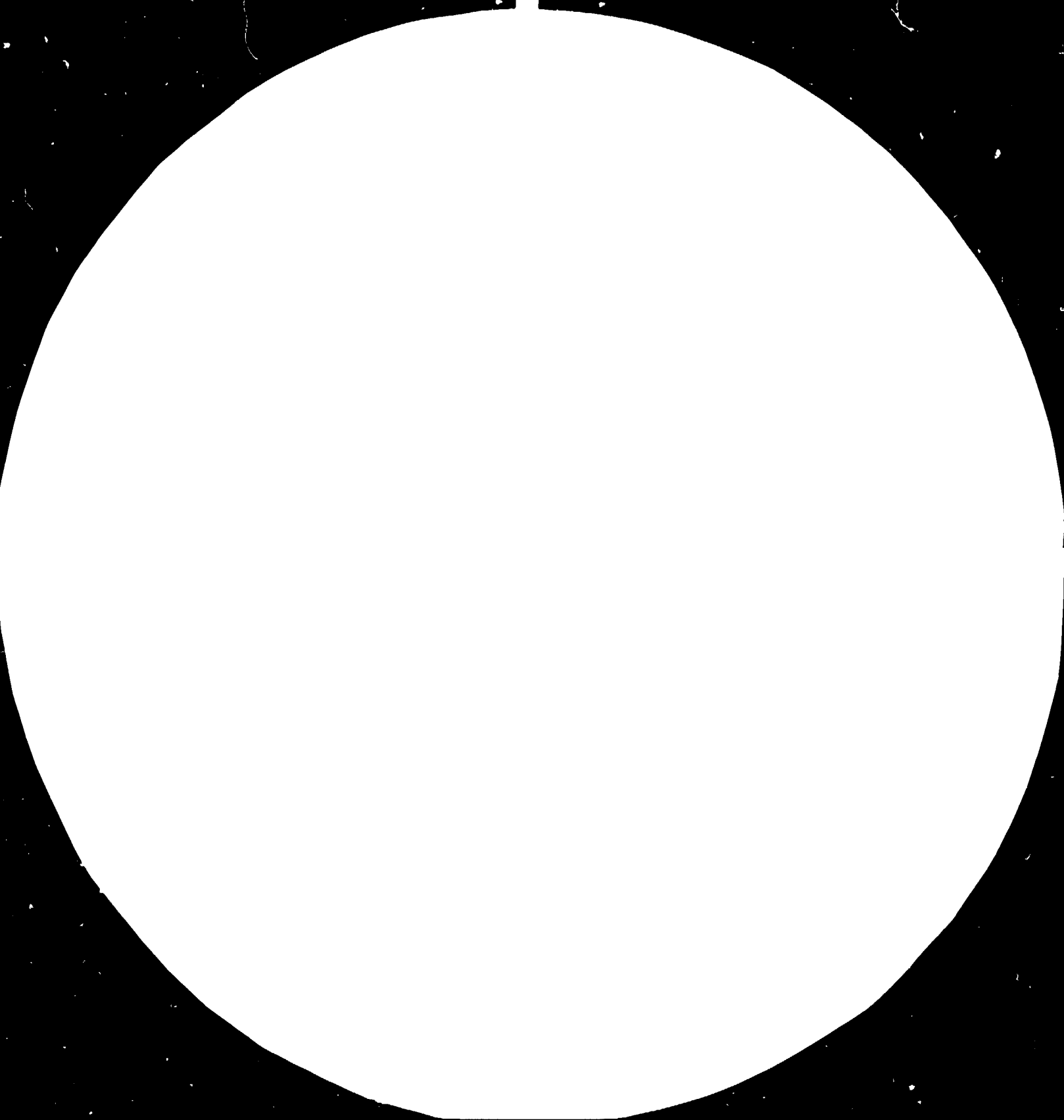
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MICROCOPY RESOLUTION TEST CHART

NATIONAL BUREAU OF STANDARDS-1963-A
CONTAINS RESOLUTION TEST PATTERNS FROM
NBS SPECIFICATION 1963-10

MM/APRIL 1981

M. Mehra

IRON AND STEEL

13651

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General Notes

- Global
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The European steel industry is still moving in the vicious circle of underemployment, high production costs and low prices. Consequently, enormous losses have sapped its financial strength.

There are more than 125 countries which constitute the third world and out of these only about 60 are producing or are preparing to produce steel. Developing countries produced about 76 mt in 1977 and 66 mt in 1976, amounting to 11.2 and 9.76% respectively of total world steel production.

(Iron and Steel International, February 1982.)

Raw steel production in the 19 reporting countries to the IISI totalled 30.25m tons in September 1981 but somewhat higher than the 28.6m tons of August 1982.

(Metal Bulletin, October 22, 1982)

IISI raw steel output

September raw steel output in the 29 reporting countries of the International Iron and Steel Institute at 30.3m tons was 18.2% below the same month of 1981. This reflects the continuing depression in US output, down 44.9% to 4.81m tons, and in that of the EEC, down 22% to 8.43m tons. Brazil and South Korea showed upturns in production of 18.1% and 13% respectively, but these giants were offset by falls in the output of countries like Australia (down 32.4%), Austria (down 22.2%) and Mexico (down 12.9%). Total IISI output in the first nine months of 1982 was 300.2m tons, down 12.1% from the same period of 1981, largely accounted for by a 38.3% fall in the USA's production.

(Metal Bulletin, October 29, 1982)

World raw steel output this year will drop to 650m tons from 709m tons in 1981, according to West German research institute Rheinisch Westfälisches Institut für Wirtschaftsforschung (RWI).

(Metal Bulletin, November 2, 1982)

The second half of 1983 and the whole of 1984 should see a marked upturn in world steel demand, while a more realistic view of over-capacity means the steelmakers which survive will be far healthier by 1985.

(Metal Bulletin, December 10, 1982)

Crude steel production in the countries which report their output to the International Iron and Steel Institute was 29,340,000 metric tons in February 1983, compared with 34,240,000 metric tons in the same month of 1982, a decrease of 14.3%. Despite some improvement United States steel production was 20.2% below that of February last year while the EEC's output, down 17.6%, reflects the Community's continuing quotas on production. Japan's output continued to decline, and was 13.2% below last February's figure.

(Steel Times, April 1983)

Raw steelmaking capacity in the market economy countries, which fell by more than 20m tonnes last year, is set to rise by more than 2% between now and January 1987.

The forecast 1983 production would give a capacity utilization rate this year of an average of 60% in market economy countries, with the US steel industry running at 52%. Europe at 61% and Japan at 60%.

The forecast capacity changes in western countries up to 1987 are (million tonnes):

| | | | | | |
|------------|------|---------|------|--------------|-------|
| Brazil | +6.7 | Iran | +1.6 | Saudi Arabia | +1.2 |
| India | +6.2 | Turkey | +1.5 | Indonesia | +1.0 |
| Mexico | +3.2 | Nigeria | +1.3 | Egypt | +0.8 |
| Yugoslavia | +1.9 | Libya | +1.3 | All Others | -12.6 |

(Metal Bulletin, May 10, 1983)

In the last quarter of 1982, the situation in the steel market in OECD countries generally continued to deteriorate and total OECD steel production in the quarter was 23% below that in the last quarter of 1981.

(Steel Times, June 1983)

Comparative performances in thousand metric tons of crude steel by major group of countries:

| | <u>March 1983</u> | <u>March 1982</u> | <u>% Change March 1983/1982</u> |
|---------|-------------------|-------------------|-------------------------------------|
| EEC (8) | 9 691 | 11 118 | -12.8 |
| USA | 6 428 | 7 300 | -11.9 |
| Japan | 7 760 | 8 813 | -11.9 |
| Others | 9 320 | 10 060 | - 7.4 |
| Total | 33 199 | 37 291 | -11.0 |

Crude steel production in the countries reporting output to the International Iron and Steel Institute was 33,199,000 tonnes in March 1983, compared with 37,291,000 tonnes in the same month of 1982 - a decrease of 11%.

World steel production for 1982 reached 643 mt, 9% less than 1981. This extremely low level of activity - lower than 1975 - follows a decrease in production of 1.2% between 1981 and 1980, and 4% between 1980 and 1979. These are among figures brought out at a recent meeting of experts on the steel market, organised by the United Nations Economic Commission for Europe (ECE).

(Iron and Steel International, June 1983)

World raw steel production rose 2.9% last year to 664m tonnes, but it was still the third lowest figure of the past decade. The Comecon countries together with China and North Korea produced a total of 257m tonnes, up 4.3% with China alone making 7.6% more or nearly 40m tonnes reflecting increased capital spending on infrastructures.

Almost half the world's 19m tonnes output increase last year came from the USA whose production was up 9m tonnes to 77m tonnes, 13.2% up on 1982. Japan made 97m tonnes, down 2.4% while EEC output was down 1.8% at 109m tonnes. Western Europe excluding the Common Market recorded a 5% rise to 34m tonnes.

While the western industrial countries saw their total output rise by only 1.6% to 343m tonnes, developing countries increased production by 5.4% to 64m tonnes. Brazil's output was 12.8% higher at almost 15m tonnes while Taiwan made 5m tonnes, 20.5% more.

(Metal Bulletin, January 31, 1984)

European stainless steel production rose in the first half of 1983, but fell back in most countries during the third quarter. However, production in both France and West Germany picked up again in October and November, with increases of some 25% and 15% respectively over third quarter production.

1983 Stainless Output

| | <u>1st 1/4</u> | <u>2nd 1/4</u> | <u>3rd 1/4</u> | <u>October</u> | <u>November</u> |
|------------|----------------|----------------|-------------------|----------------|-----------------|
| France | 128.4 | 145.8 | 120.0 | 55.1 | 53.3 |
| W. Germany | 179.3 | 181.4 | 187.1 | 72.5 | 73.0 |
| Italy | 110.4 | 114.1 | 75.7 | 45.4 | - |
| Sweden | 84.0 | 97.7 | 79.2 | - | - |
| Spain | 49.9 | 50.3 | 41.3 | - | - |
| UK | 54.8 | 55.3 | 57.9 | 27.8 | - |
| Belgium | 35.6 | 35.7 | 29.2 | 12.3 | - |
| Finland | 32.5 | 32.5 | 18.1 | - | - |
| Austria | 16.4 | 18.0 | 17.0 ⁴ | - | - |

⁴ = estimate

Source: Alloy Metals and Steel Market Research

(Metal Bulletin, January 17, 1984)

North America.

United States

US raw steel output continued its decline in August slumping to 5.54m short tons from 5.72m tons in July and 10.1m tons in August 1981. In the month, US mills operated at a rate of 42.4% of capacity compared with 43.8% in July and 77.3% in August last year. Output in the first eight months was 38% lower than in 1981 at 53.1m tons (85.7m tons) while operating rates were 51.8% versus 82.8% in 1981.

(Metal Bulletin, October 8, 1982)

Stainless steel scrap, which earlier this year was still swimming against the tide has now joined the other sectors of scrap industry in decline and recession.

(Metal Bulletin, October 22, 1982)

US raw steel output continued to decline in September and for the first nine months of the year production was almost 40% below the same 1981 period.

(Metal Bulletin, November 9, 1982)

US raw steel production continued its downward trend in October and represented only 40.2% of capacity.

(Metal Bulletin, December 3, 1982)

US ferrous scrap processors have experienced the worst third quarter for domestic demand since 1962 with despatches reaching only 6.2m short tons. The 42% drop from the 10.6m tons purchased in the third quarter of 1981 "tells the sorry statistical story of the scrap industry in 1982".

(Metal Bulletin, December 14, 1982)

Production of raw steel by US mills hit a 36-year low in November at 4.55m short tons compared with 5.26m tons in October and 7.96m tons in November last year. The November figure represented only 35.9% of capacity.

In the January-November period output totalled 68.17m tons (48.4% of capacity) compared with 112.30m (79.1%) in 1981.

(Metal Bulletin, December 31, 1982)

Europe

F. R. of Germany

West Germany's ferrous scrap market plumbed new depths this month as the continuing crisis in the steel industry pushed deliveries down still further.

(Metal Bulletin, December 24, 1982)

The German steel industry saw output of rolled ready production fall by 13% in the first 11 months of 1982. Thin sheet, the largest group went down by 4.8%. Flat products (plates and strip) were able to hold their own better than profile steel, whose price came under heavy pressure.

Medium- and heavy-plate production went down by 34% and 38% respectively in the past three months and medium-plate output in November, 1982, fell by 50% over the like, year-earlier period.

Use of capacity has reached a new low. Krupp Stahl has reported that the plants making semi-finished products and sections at Rheinhausen are only operating at between 15% and 35% capacity. The overall use of capacity in the German industry last year, calculated on the basis of crude steel output of 35.8Mt (a drop of 13.8%), was around 56.4%.

The EEC Commission now expects more decided reductions in surplus steel-making capacity in the member-countries this year. By 1985, the Commission says, rolled ready production capacity in the Community should be around 147.5 Mt. Actual capacity in 1983 and 1984 is estimated at 147.6Mt.

Rolled Ready Output EEC in Mt

| <u>Country</u> | <u>Output</u> 1981 | <u>Capacity</u> 1985 |
|----------------|-----------------------|-------------------------|
| FRG | 26.4 | 46.8 |
| UK | 10.4 | 16.8 |
| France | 16.5 | 25.8 |
| Italy | 17.4 | 34.1 |
| Belgium | 7.0 | 11.7 |
| Luxembourg | 3.0 | 5.3 |
| Netherlands | 2.7 | 5.7 |

(Steel Times, March 1983)

The West German steel industry will not survive the eighties with its present structure and only two large steel units will be able to cope with the future.

(Steel Times, March 1982)

Luxembourg

The Luxembourg steel group, Arbed, has produced 12.9% less steel in all its plants in the first nine months of this year than in the same period of 1980.

(Steel Times, March 1982)

Belgium

The competitive position of the Belgian steel industry worsened considerably last year. Hourly wage-rates rose 8% in the steel industry in 1981, while productivity could only be improved by 6%.

(Steel Times, August 1982)

Switzerland

The two principal Swiss steelworks of Roll at Gerlafingen and Moos in Luxerne both made losses last year, it is reported from Zürich, despite price cutting and plant modernisation.

(Steel Times, March 1983)

Italy

A plan to revamp the state steel industry has been approved by Italy's Committee for Industrial Policy.

(Iron and Steel International, February 1982)

Italy's largest steelmaker, Nuova Italsider, has produced a record loss of almost 307Bn lire (£148.7M) in the first three months of its existence, with the bulk of the losses - some 294Bn lire - accounted for by interest payments and write-offs.

(Steel Times, June 1982)

Italy's raw steel output in January was only 1.78m tonnes, 20% down on the same 1982 month when 2.22m tonnes were produced. January 1983's special steel production amounted to 0.39m tonnes, down 16%.

(Metal Bulletin, March 4, 1983)

Italian steel production continues at a very low level. Raw steel output in May was 1.92m tonnes, down 14.6% from May 1982, while cumulative output in the first five months of the year was 22.4% below the same period a year ago at 8.8m tonnes.

Special steels also suffered, with May output down 10.2% to 397,000 tonnes and January-May output 22.3% lower than a year ago at 1.88m tonnes. Pig iron production was 19.3% lower in May at 884,000 tonnes, while the five month production total fell 22.7% to 4.06m tonnes. The country was particularly penalised by EEC steel policy, which did not take account of the peculiarities of Italy's steel industry and market.

(Metal Bulletin, June 21, 1983)

Spain

The Spanish Government's Co-ordination Committee of the Integrated Steel Industry has requested consulting services from Kawasaki Steel in the restructuring of three of its major steel firms. Empresa Nacional Siderurgica SA (Ensidesa), Altos Hornos del Mediterraneo SA (A.H.M.), and Altos Hornos de Vizcaya SA (A.H.V.), are the firms involved.

(Iron and Steel International, June 1982)

The Spanish industry has been gearing up to a domestic steel production of around 16m tonnes in the early 1980s, but that the actual totals have been around 50% less. The Spanish ferro alloy industry has a capacity to produce around 551,000 tpy, but is currently operating at or under 50% capacity use.

(Metal Bulletin, January 25, 1983)

Turkey

The Turkish Government has agreed in principle to take over special steels maker, Asil Celik, in an attempt to save it from insolvency.

(Iron and Steel International, December 1982)

Turkey's raw steel output in 1982 was 2.58m tonnes, 9% up from 1981's figure but 13% short of target production. Similarly, pig iron production at 2.18m tonnes was 5% short of target, and seamless tube production at 8,000 tonnes 20% less than target. Turkish Iron and Steel Co (TDCI) produced 39% of all raw steel, maintaining its leading position. The figures below are for raw steel output ('000 tonnes).

| | <u>1981</u> | <u>1982</u> | <u>% change</u> |
|------------------|-------------|-------------|-----------------|
| TDCI Karabük | 558 | 540 | -3.2% |
| TDCI Iskenderun | 375 | 461 | +22.9% |
| Eregli (Erdemir) | 919 | 984 | +7.1% |
| MKEK | 46 | 48 | +4.3% |
| Private sector | 479 | 550 | +14.8% |
| Total | 2,377 | 2,583 | +8.7% |

(Metal Bulletin, April 22, 1983)

France

A multi-million Franc reconstruction plan aimed at bringing the country's steel industry back into profit by 1986 has been approved by the French cabinet. Production capacity will be cut and new capital made available to state steel companies Usinor and Sacilor. Some smaller steelworks are likely to be shut.

(Iron and Steel International, August 1982)

United Kingdom

The UK ferrous scrap industry is fast approaching a crisis, and if steps are not taken soon to avert disaster, the sector may "within months" have insufficient capacity to service the UK steel industry.

(Metal Bulletin, October 12, 1982)

Steel production in Britain averaged 259,300t/week in January, recovering to an overall rate slightly above the depressed level of activity from September to November last year. However, production in January this year was 8.5% below the 283,300t/week recorded in January 1982.

(Steel Times, March 1983)

Over-capacity in the steel industry and the more depressed outlook for industrial activity together with the increased import penetration in the UK market will effectively limit steel price increases over the short term.

(Metal Bulletin, October 8, 1982)

Japan

A pessimistic view that has arisen in Japanese steel industry circles that their industry, now boasting very strong competitiveness, will face a financial crisis around 1990 as it will then need a tremendous amount of money to replace the increasing number of superannuated production facilities. Industry analysts estimate that the ratio of relatively new production units - in operation for less than 10 years - will decline to 35.6% in that year, from the present 60%.

The Japan Iron and Steel Federation has revised downward its long-term steel demand and supply outlook, explaining that this has been occasioned by the restraint on public investments, lagging housing construction starts, and the slower growth of automobile production.

(Steel Times, March 1982)

Fears are growing in steel industry circles in Japan that their industry will face a financial crisis around 1990 as it will need a huge amount of money to replace the increasing number of superannuated production facilities.

(Iron and Steel International, April 1982)

The decline in Japanese steel production has been much sharper among the electric furnace companies.

(Metal Bulletin,

Japanese raw steel output is likely to fall below 100m tons in calendar 1982 and is expected to fall further, possibly by as much as 2m tons, in 1983.

(Metal Bulletin, October 22, 1982)

Japanese crude steel production in the 1982 calendar year was 99,550,000 tonnes - down 2.1% from 1981. It was the third consecutive annual drop and the first time in 10 years that total production has been below 100 million tonnes.

(Iron and Steel International, August 1983)

In July, for the third month running, Japan produced more than 8m tonnes of crude steel. This is after a seven month slump of producing less than this level ended back in April. July's output was 8.4m tonnes - 2.6% up on last July and 5% more than June.

(Iron and Steel International, October 1983)

Developing World

India

Kudremukh Iron Ore Company, Bangalore, is to set up a pelletising plant in Mangalore for the beneficiation of high-grade iron ore concentrate. (Iron and Steel International, February 1982)

The slump in world steel output may force Indian iron ore exports down 9% to 23.5m tons during the current fiscal year to March, from 1981-1982's 25.88m tons.

(Metal Bulletin, October 8, 1982)

India's iron ore exports in the financial year to next March may fall steeply as Japanese steelmakers propose cuts in steel output this year.

(Metal Bulletin, April 19, 1983)

South Korea

Pohang Iron and Steel Co has decided to cut its hot coil exports to Japan by 40% to around 60,000tpm. Since last autumn, the largest South Korean steelmaker has exported its hot coils to Japan at a rate of 100,000 tpm.

(Iron and Steel International, June 1982)

Yugoslavia

Preliminary output targets for the Yugoslav iron and steel industry this year have been agreed. Iron production is to total 3.2mt, an increase of 80,500 t over 1982. Crude steel output target has been set at 4.7 mt, a modest increase of 64,000t over last year. The industry expects a slight increase in exports next year over 1982 exports estimated at 339,200t of finished products.

Latin America

While Brazil, the region's top producer, showed an 8.5% increase on the same January to June period last year, second placed Mexico saw production fall by almost 10%.

And the same mixed fortunes are apparent amongst the smaller producers; Uruguay nearly doubled its output to 18.5m tonnes for this six month period - Central America cut its production by 65%.

Of course the whole region is in economic turmoil, and at the moment over 50% of the value of exports goes on just servicing the interest on the external debt. In the face of this, a 1.7% overall increase in output of the whole region is good news, especially when compared with the drops in production experienced by the industrialized countries.

| <u>Steel Production January - June 1983 and 1982 (10³t)</u> | | | |
|--|-----------------------|-------------|---------------------|
| | <u>1983</u> | <u>1982</u> | <u>1983/1982(%)</u> |
| Argentina | 1,408.5 | 1,235.6 | 9.6 |
| Brazil | 6,712.9 | 6,183.3 | 8.6 |
| Central America | 8.4 ^e | 24.5 | -65.7 |
| Colombia | 215.6 | 194.0 | 11.1 |
| Chile | 318.5 | 232.0 | 37.3 |
| Ecuador | 9.3 | 14.0 | -33.6 |
| Mexico | 3,332.4 | 3,697.9 | -9.9 |
| Peru | 18.5 ^e | 9.3 | 98.9 |
| Venezuela | 1,135.4 ^e | 1,271.2 | -10.7 |
| Total | 13,313.7 ^e | 13,094.7 | 1.7 |

Source: ILAFA

(Iron and Steel International, October 1983)

According to reports, Dalmine Siderca, the Argentine seamless tube producer, has paid \$5.3m to take over Siat.

(Iron and Steel International, October 1982)

Brazilian iron ore exports fell into 71.5m tonnes during 1982, down 11.3% from 1981's 79.7m tonnes.

(Metal Bulletin, February 15, 1983)

Brazilian raw steel output in the first six months of 1982 was 7.42m tons, down 9% from last year's 8.16m tons. Among finished products, the fall was particularly marked for bars, down 30% to 427,000 tons, and slabs for sale, down 61% to 70,000 tons.

(Metal Bulletin, October 19, 1982)

Argentine raw steel output in September was 313,300 tons, up 35% from September 1981. Total production in January-September was 2.13m tons, up 16% from the same period a year ago. Rolled steel output was 1.75m tons, up 13% from January-September 1981.

(Metal Bulletin, November 5, 1982)

CAPACITY, PRODUCTION CUTBACKS

- North America
- Europe
- Asia

Global

Information from the latest World Capacity Report from UK consultants James F. King indicates that the steel industry in western countries operated at 66.5% of capacity during 1981, compared to 67.8% in 1980. Capacity utilisation was particularly low in Europe and Asia (principally Japan).

| Region | Capacity Utilisation 1981 |
|------------------------|---------------------------|
| North America | 70.7% |
| Latin America | 68.9 |
| Europe | 65.2 |
| Africa | 67.0 |
| Asia | 63.6 |
| Oceania | 73.6 |
| Total Market Economies | 66.5 |

The latest JFK forecasts show that current investment plans will yield an increase in total world liquid steel capacity of 94m tonnes between 1981 and 1989, an average annual rate of increase of 1.0%. In the period 1981-85 the average annual growth is forecast at 1.7%. (Steel Times, March 1982)

Information in the latest edition of the report on world liquid steel capacity from James F. King shows that during 1981 and through the first quarter of 1982 the steel industry in market economies operated at under 70% of installed capacity.

Despite the low levels of utilisation of current capacity, substantial further capacity expansion is planned in the market economies as a whole.

| | Production 1981 (million tonnes) | Capacity Utilisation |
|----------------------|-------------------------------------|-------------------------|
| United States | 108.9 | 70.3% |
| Japan | 101.7 | 60.7 |
| Germany F.R. | 41.6 | 63.7 |
| Italy | 24.7 | 69.1 |
| France | 23.2 | 69.1 |
| United Kingdom | 15.5 | 56.2 |
| Canada | 14.8 | 77.2 |
| Brazil | 13.2 | 76.4 |
| Spain | 12.9 | 84.0 |
| Belgium | 12.3 | 61.9 |
| Korea, Republic | 10.8 | 90.7 |
| India | 10.5 | 76.9 |
| All Market Economies | 457.8 | 66.6 |

| | 1982 | 1983 | 1984 | 1985 | 1986 | 1981-1989 |
|-----------------|------|------|------|------|------|-----------|
| million tonnes | 6.6 | 11.7 | 3.3 | 6.9 | 6.4 | 43.9 |
| per cent change | 1.0 | 1.7 | 0.5 | 1.0 | 0.9 | 6.4 |

(Steel Times June 1982)

The pressure of the weak steel market has accelerated the pace of restructuring in the world steel industry, especially in the EEC and the USA. The latest quarterly review of developments of world steel capacity shows that closures at existing operations, delays and cancellations of future projects in Europe and the USA are expected to reduce capacity by 13m tons within the next few years, relative to the position expected as late as April 1982. (Metal Bulletin, November 9, 1982)

Total world liquid steel capacity at 1 January 1983 is estimated at 944Mt, of which 665Mt is in the market economies. Estimate of capacity in market economies at 1 January 1982 was 687 Mt. The reduction of capacity is the result of substantial closures of capacity in the USA and some countries of Western Europe during the year. Forecast that current industry plans will provide for an increase in liquid steel capacity in market economies of 14.1 Mt between January 1983 and January 1987, ie, 2.1% over the four year period. Expansion of capacity is mainly concentrated in certain developing countries, while contraction of capacity is expected in most European countries and USA. Significant reductions in capacity in Japan have yet to be announced. The largest expansions of capacity are in the following areas:

| | Mt |
|----------------|-------|
| Brazil | +6.7 |
| India | +6.2 |
| Mexico | +3.2 |
| Yugoslavia | +1.9 |
| Iran | +1.6 |
| Turkey | +1.5 |
| Nigeria | +1.3 |
| Libya | +1.3 |
| Saudi Arabia | +1.2 |
| Indonesia | +1.0 |
| Egypt | +0.8 |
| All others | -12.6 |
| Change 1983-87 | +14.1 |

Capacity to produce continuous-cast steel in market economies is 300 Mt, equivalent to 45% of total liquid steel capacity. This ratio varies widely between countries. The continuous casting capacity and the ratio of CC capacity to total liquid steel capacity at 1 January 1983 is shown for the 12 largest steel-producing countries in the table below.

| | | |
|--------------|-------|------|
| Japan | 91.5 | 57.0 |
| USA | 43.8 | 26.7 |
| Germany FR | 27.7 | 46.8 |
| Italy | 21.9 | 57.2 |
| France | 9.9 | 33.4 |
| UK | 11.0 | 45.6 |
| Spain | 9.5 | 55.8 |
| Brazil | 8.9 | 47.8 |
| Canada | 7.1 | 35.8 |
| India | 1.9 | 13.5 |
| Belgium | 7.1 | 35.9 |
| South Africa | 6.3 | 62.5 |
| All areas | 299.6 | 45.0 |

The forecasts show that the ratio of continuous casting to total steel capacity will rise to 51.7% by 1987 as a result of the major investment in continuous casting which is currently underway. This 1983 rate of production would permit utilisation of capacity to average 60% in the market economies, with 52% in the USA, 61% in Europe and 60% in Japan. (Steel Times, June 1983)

First drafts of the EEC Commission's latest revision of its "general objectives for steel" indicate that it expects the Community's excess production capacity to get worse before it gets better. (Metal Bulletin, October 1, 1982)

Canada

Stelco Inc., Canada's largest steelmaker, has warned some 900 of its employees at its main Hilcon works that they may be laid off in six weeks time. (Metal Bulletin, October 1, 1982)

Stelco Inc., Canada's largest steelmaker, has revised its plans for layoffs scheduled to come into effect this quarter because of the continuing depressed market conditions which officials are describing as the worst since the 1930s. (Metal Bulletin, October 15, 1982)

Cutbacks in major construction projects have been announced by Algoma Steel Corp, Ltd of Sault Ste Marie, Ontario. Market conditions have forced a reduction in their expansion programme, including a new \$300m seamless tube mill. Equipment ordered for the mill will be stored until work resumes. (Iron and Steel International, December 1982)

The deepening North American recession and its adverse effects on the Canadian steel market have obliged the country's third largest steelmaker, Algoma, to slow down its C\$300m seamless pipe mill project at Sault Ste. Marie. (Metal Bulletin, October 19, 1982)

Dofasco has announced that it will close down its Hamilton works between December 24 and January 2 because of a lack of orders and only those workers needed to keep the furnaces going will not be affected. Stelco, which also has its main works at Hamilton, has already said that it will be closing down for two weeks at Christmas (MB Oct 29). Dofasco is laying off 2,100 employees from November 4 and says it sees no prospect of a recovery for the industry.

Wabush Mines, the Pickands Mather-managed mining and pelletizing operation, will close for two months next summer because of poor business conditions in the steel market. The closure will affect 485 employees at the Scully Mine in Wabush, Labrador, and 335 workers at the pelletizing plant at Pointe Noire, Quebec. (Metal Bulletin, December 10, 1982)

United States

The eight largest integrated steelmakers in the USA recorded losses of more than \$800m in the third quarter, reports Wall Street Journal. With the final quarter likely to another "bloodbath" the industry's losses during 1982 are expected to reach almost \$3,000m. (Metal Bulletin, November 5, 1982)

Inland Steel Co., which recently issued a bleak prediction of its third quarter results including a doubling of second quarter losses (MB Oct 8), has closed down indefinitely its open hearth steelmaking shop at the Indiana Harbor works. (Metal Bulletin, October 22, 1982)

Lukens Inc. has announced it will close its steel operations from December 24 to January 3. (Metal Bulletin, December 17, 1982)

Armco Inc. has announced that it will terminate various carbon steel operations at its plants in Houston, Texas, Kansas City, Miss, and Hamilton, Ohio, as part of a series of retrenchments which will result in special financial charges of \$130m after tax in the 1982 fourth quarter. (Metal Bulletin, January 14, 1983)

US raw steel production capability dropped to an estimated 136.2m short tpy at the beginning of this year, a decrease of 14.4m tpy or 9.6% from the 1983 figure. (Metal Bulletin, January 24, 1984)

Mr. Barnett, a former Steel Economist with the Iron and Steel Institute, forecasts a sharp shrinkage of raw steel capacity among the large, integrated producers. In 1980, that capacity was about 138 million tons. Mr. Barnett sees it dropping to 105 million tons in 1985, to 91 million tons by 1990 and perhaps bottoming out at about 75 million tons by the year 2000. At the same time, he expects capacity to grow for the mini-mills. In 1980, their capacity was 16 million tons. Mr. Barnett sees that expanding to 21 million tons by 1990 and peaking at 37 million tons by the year 2000. (IHT, February 3, 1984)

Europe

EEC raw steel production capacity has fallen by just over 9m tpy since 1980.

| | 1980 | 1982 |
|----------------|-------|-------|
| West Germany | 66.9 | 66.0 |
| Belgium | 19.7 | 17.2 |
| France | 32.5 | 29.6 |
| Italy | 39.4 | 39.2 |
| Denmark | 1.1 | 0.9 |
| Irish Republic | 0.1 | 0.3 |
| UK | 28.0 | 25.0 |
| EEC Total | 202.6 | 193.2 |

(Metal Bulletin, March 8, 1983)

Surplus capacity in the EEC's steel industry will be worse in 1985 than it was in 1980.

| (million tonnes) | Output | Necessary capacity | Announced capacity | Surplus capacity |
|------------------|--------|--------------------|--------------------|------------------|
| - Raw steel | 119.7 | 140.8 | 197.0 | 56.2 |
| Heavy sections | 7.2 | 9.0 | 15.6 | 6.6 |
| Light sections | 9.7 | 12.1 | 19.4 | 7.3 |
| Rebar | 7.5 | 9.4 | 12.4 | 3.0 |
| Wire rod | 11.0 | 13.8 | 19.7 | 5.9 |
| Strip | 4.9 | 6.1 | 10.7 | 4.6 |
| HR sheet | 12.5 | 15.6 | 27.9 | 12.3 |
| CR sheet | 28.1 | 35.1 | 45.5 | 10.4 |
| Wide hot strip | 51.5 | 64.4 | 76.5 | 12.1 |

(Metal Bulletin, April 8, 1983)

Latest EEC Commission figures show the steel industry will have to redouble the efforts made up to now if it is to meet the target set by Brussels for the elimination of overcapacity.

| | Capacity 1980 | Cap 1980-83 | Cuts promised | Total cuts |
|--------------|---------------|-------------|---------------|------------|
| West Germany | 52 883 | 1 845 | 865 | 2 710 |
| Belgium | 16 028 | 1 314 | 966 | 2 280 |
| Denmark | 941 | 86 | - | 65 |
| France | 26 869 | 1 114 | 3 082 | 4 192 |
| UK | 27 840 | 4 340 | - | 4 345 |
| Italy | 36 294 | 531 | 131 | 660 |
| Ireland | 57 | - | - | - |
| Luxembourg | 5 215 | - | 530 | 530 |
| Netherlands | 7 257 | - | - | - |
| EEC total | 168 424 | 9 214 | 5 573 | 14 783 |

(Metal Bulletin, May 4, 1983)

Prospects for steel consumption are considered so bleak over the next few months that the EEC Commission is planning to bring in drastic cuts in steel production quotas for the third quarter of this year. The quota for reinforcing steel is to be cut to 47% for production and to 50% for delivery on the EEC market. Quotas for wire rod and hot rolled strip have been set at 40% and 37-33% respectively. Quotas for strip steel for production and delivery are set at 38% and 40%. (Steel Times, September 1982)

France

French raw steel output fell to 1.39m tons in November, 15.5% down on Nov 1981 and 11.8% lower than October, bringing output for 1982 so far to 17.27m tons, down 11.7%. November pig iron output of 1.13m tons was 15.2% down on Nov 1981 and 9.8% lower than October. Jan-Nov pig iron output of 14.08 tons was 11.5% down. (Metal Bulletin, December 10, 1982)

Germany

Krupp Stahl's plans to phase out sections production at its Rheinhausen works and to cut the workforce by 3,600 over two years will mean the closure of six rolling mills. The mills have been operating at only 15-35% of their capacity, and most of the production will be transferred to other mills in the Krupp group. (Metal Bulletin, December 10, 1982)

Luxembourg

Swinging cutbacks in production capacity at Arbed have been recommended in the report on the Luxembourg steel industry. Current raw steel capacity of around 6m tpy should be brought down to a maximum of 4.5m tpy. (Metal Bulletin, February 15, 1983)

Arbed's investment plans, lodged with the EEC Commission by the Luxembourg government, show a cut in spending from Luxfr 36,300mm originally planned for 1983-87 to Luxfr 15,000m (MB Apr 8). Among the victims of the investment cuts are plans for a new coking plant and rolling mill. Rolled steel capacity will be cut to 3.1m tpy, compared to actual output of 2.94m tonnes in 1982. (Metal Bulletin, April 12, 1983)

UK

The UK's GKN group suffered substantial book losses of £53m in the business year ended December 31, 1982 due to restructuring and discontinuation of operations. The principal item under discontinued activities was a provision of £10m as a result of the decision to run down GKN Contractors Ltd, while rationalisation in bright steel operations cost £3m, wire products £3m and fastener manufacture and distribution £6m. (Metal Bulletin, April 12, 1983)

UK

British Steel Corp's two major plants in South Wales are going on to short-time working. Llanwern has shut down iron and steelmaking for the whole of this week to try to reduce stocks of ingot and slabs. This will mean a cut in output of some 30,000 tons. (Metal Bulletin, October 19, 1982)

British Steel Corp has announced a survival plan for its special steels division in Sheffield entailing a cut of 1,709 in the workforce. (Metal Bulletin, December 3, 1982)

Still more redundancies have been announced by British Steel Corp as it seeks to reduce its losses and it took the number of cutbacks to around 4,000 during the week.

Less than a quarter of UK steel wiredrawing capacity will be scrapped under a self-help scheme involving companies representing more than 80% of British wire production. (Metal Bulletin, December 7, 1982)

West Germany

More than half the workforce of Thyssen's steel plants is now on short time following the introduction of reduced hours for 3,800 more steelworkers from the start of this month. (Metal Bulletin, November 9, 1982)

Sweden

Sweden's Sandvik has announced a series of cutbacks involving nearly 1,000 job losses, most of them in the Sandviken steelworks but also at other parts of the special steel and cemented carbide producer. (Metal Bulletin, November 9, 1982)

Italy

Steel production capacity cutbacks amounting to some 6.7m tpy are being proposed by the Italian government in a bid to make the state steel group Finsider profitable by 1985. More than 15,900 jobs are slated to be cut between now and 1987, on top of the cuts of the last two years. (Metal Bulletin, April 15, 1983)

Production cutbacks at state steelworks in Italy will be more severe than at first thought (MB Oct 5). The troubled Bagnoli works near Naples is shutting entirely until the middle of next year, while the Genoa and Taranto works will also curb output. State steel group Finsider denied that the Bagnoli cutback would be the first step towards a complete shut-down of the long-threatened works. Around 6,000 workers will be affected at Bagnoli, and a further 9,500 workers at other parts of the group will also be laid off. (Metal Bulletin, October 8, 1982)

Netherlands

Hoogovens is to offer a capacity reduction of 7.5% when its final restructuring programme is presented to the EEC Commission. (Metal Bulletin, October 8, 1982)

Spain

The Spanish general election, to be held on October 28, means that plans for the reshaping of the country's steel industry are in abeyance. (Metal Bulletin, October 8, 1982)

As expected (MB Dec 3), Ensidesa has announced temporary closure of a number of its steelmaking installations because of the poor market outlook. The major Spanish steelmaker will shut the Avilés heavy plate mill from January to October 1983. Restart then depends on the market. The Verina beam mill will cut output 25%. (Metal Bulletin, December 17, 1982)

EEC

The EEC Commission recently released the following figures in response to a question in the European parliament. They show steelmaking capacity in the member states and how it has changed between 1975 and 1981. The figures are taken from the Commission's annual survey of steel capacity trends, for which all information is provided by steel producers themselves. What emerges most clearly from the figures is that overall capacity has actually increased strongly in recent years, adding to the current problems of reducing it. There are also markedly different trends between the different countries, with Italy showing a rise of not far off 50% in its finished products capacity, while the UK has over 17% less.

(Metal Bulletin, December 17, 1982)

| million tpy | Raw steel | | | Finished products | | |
|---------------|-------------|-------------|--------------|-------------------|-------------|--------------|
| | 1975 | 1981* | % difference | 1975 | 1981* | % difference |
| W Germany | 629 | 678 | + 7.8 | 482 | 507 | + 5.2 |
| Belgium | 190 | 179 | - 5.8 | 143 | 131 | - 8.4 |
| France | 337 | 297 | - 11.9 | 251 | 264 | + 5.2 |
| Italy | 327 | 408 | + 24.8 | 240 | 358 | + 49.2 |
| Luxembourg | 7.5 | 64 | + 147 | 5.5 | 52 | + 5.5 |
| Netherlands | 63 | 86 | + 36.5 | 44 | 57 | + 29.5 |
| UK | 270 | 214 | - 20.7 | 204 | 174 | - 14.7 |
| Denmark | 0.7 | 0.6 | - 14.3 | 0.6 | 0.5 | - 16.7 |
| Inst. Res. | 0.1 | 0.1 | 0 | 0.1 | 0.1 | 0 |
| Total | 1899 | 1977 | - 4.1 | 1411 | 1541 | + 8.5 |
| * Provisional | | | | | | |

Spain

After keeping its production level higher than that of demand in 1982, Spain's major steelmaker, Ensidesa, was obliged to retrench sharply last year. Raw steel output was cut from 1983's 4.5m tonnes to around 3.9 tonnes in an effort to reduce the stocks of raw materials, semi and finished products by a total of some Ptas 10,000m. (Metal Bulletin, January 17, 1984)

Netherlands

In a gloomy New Year message, Hoogovens chairman Jan Hooglandt said "sacrifices this year will be heavier than in 1982." The Dutch steelmaker wants to reduce its workforce by 1,300 in 1985, but will shed 1,000 jobs this year. Hoogovens' raw steel output amounted to 4.1m tons last year, against 5.2m tons in 1981. (Metal Bulletin, January 11, 1983)

Belgium

Belgium prime minister Wilfried Martens admitted last weekend that his government is now resigned to further major pruning of capacity at the country's ailing state steelmaker Cockerill-Sambre. His statement that a capacity figure of around 5m tpy or less should be looked for is fueling speculation that former Sacilor-Sollac president Jean Gandois has been brought in as a "hatchetman". Martens said he had been told by Gandois - hired to establish a restructuring plan for C-S - that job losses of 7,000-10,000 could be expected. (Metal Bulletin, January 7, 1983)

Agonising in Belgian political circles about the future of ailing state steelmaker Cockerill-Sambre seems to be coming round to acceptance of the idea that further pruning of capacity is inevitable. (Metal Bulletin, December 10, 1983)

Speculation is gathering pace over the likelihood of further large-scale capacity reductions at Cockerill-Sambre, the major Belgian state-controlled steelmaker. Blast furnaces, melting shops and rolling mills would be shut down both in Liège and in Charleroi. (Metal Bulletin, January 21, 1983)

EEC steel producers have been told they must reduce their capacity by a total of 26.7m tpy, following a decision this week by the EEC Commission. (Metal Bulletin, July 1, 1983)

Yugoslavia

Yugoslavia's raw steel output is expected to increase from its present level of 4m tpy to 6-6.5m tpy in the space of the current five-year plan. The Commission is looking for a reduction of over 60m tpy, or more than 30% in raw steel capacity over the 1980-85 period, bringing EEC output potential down to 142.1m tons. EEC mills plan to retain 200.1m tons of capacity. (Metal Bulletin, October 1, 1982)

Australia

Australian Iron and Steel Pty Ltd. will mothball its Kwinana pig iron furnace in Western Australia only seven months after the completion of a \$A28m refit. However the closure may only be temporary. (Iron and Steel International, February 1982)

Asia

Japan

Nippon Steel Corp announced last week that it is to suspend the operation of plant at five of its major works over the next 13 months due to falling demand. The industry was operating at little more than 50% of capacity. (Metal Bulletin, February 15, 1983)

Bangladesh

Bangladesh produced 77,600 tonnes of raw steel in calendar 1982. (Metal Bulletin, January 21, 1983)

Indonesia

The Indonesian steel industry was faring better under the pressures of a world economic recession than those of many other countries including the USA, Krakatau Steel president Tunky Ariwibowo said recently. He said that Krakatau Steel's operating rate of 50% of capacity compared favourably with that of steel makers in most other countries apart from Japan, where the rate was 60%. (Metal Bulletin, January 21, 1983)

Japan

Declining demand for steel and indications that there might not be any marked improvement in the market for the next three years are causing Japanese steelmakers to cut back sharply on their investment plans for fiscal 1983. (Metal Bulletin, December 10, 1982)

PLANT CLOSURES, DELAYS

- North America
- Europe
- Developing World
- Japan

NORTH AMERICA

Kaiser Steel Corp's Eagle Mountain iron ore mine in California has been shut down, possibly permanently.

(Metal Bulletin, Tuesday, January 25, 1983)

J+L Steel Corp will suspend coke oven operations at its Campbell works at Youngstown, Ohio, for an indefinite period from the first week of February and will permanently close the coke batteries there later this year.

(Metal Bulletin, Tuesday, February 1, 1983)

Algoma Steel Corp has announced it expects to close permanently the 18in merchant mill at its Sault Ste Marie works later this year.

(Metal Bulletin, Tuesday, June 14, 1983)

Samancor shuts US alloys plant:

The company's ferro-alloys plant in Rockwood, Tennessee, closed earlier this year due to poor markets for its high carbon ferro-manganese.

(Metal Bulletin, Friday, April 29, 1983)

The deepening North American recession and its adverse effects on the Canadian steel market have obliged the country's third largest steelmaker, Algoma, to slow down its C\$300m seamless pipe mill project at Sault Ste Marie.

(Metal Bulletin, Tuesday, October 19, 1982)

Iron Ore Co. of Canada is to shut down its Schefferville, Que, mining operations, according to Canadian mines.

(Metal Bulletin, Friday, November 5, 1982)

Iron Ore Co. of Canada (IOC) has confirmed it plans to abandon mining at its Knob Lake operations in Schefferville, Quebec, in the wake of the continuing decline in demand for the type of direct shipping ore produced there.

(Metal Bulletin, Tuesday, November 9, 1982)

Dofasco has announced that it will close down its Hamilton works between December 24 and January 2 because of a lack of orders and only those workers needed to keep the furnaces going will not be affected. Stelco, which also has its main works at Hamilton, has already said that it will be closing down for two weeks at Christmas (MS Oct. 29). Dofasco is laying off 2,100 employees from November 4 and says it sees no prospect of a recovery for the industry.

(Metal Bulletin, Friday, November 5, 1982)

cont. North America:

Wabush Mines, the Pickands Mather-managed mining and pelletizing operation, will close for two months next summer because of poor business conditions in the steel market. The closure will affect 485 employees at the Scully Mine in Wabush, Labrador, and 335 workers at the pelletizing plant at Pointe Noire, Quebec.

(Metal Bulletin, Friday, December 10, 1982)

Canada's Interprovincial Steel + Pipe (Ipsco) is shutting one of its subsidiaries, Brooks Tube Ltd, at the end of the year for an indefinite period.

(Metal Bulletin, Tuesday, December 14, 1982)

Mini-Steel Works engineering company Ferrco is running down its operations at its Canadian base in Whitby, Ont, and within the next 6-8 weeks will be completely closed.

(Metal Bulletin, Friday, June 17, 1983)

EUROPE

ITALY:

Production cutbacks at state steelworks in Italy will be more severe than at first thought (MB Oct. 5). The troubled Bagnoli works near Naples is shutting entirely until the middle of next year, while the Genoa and Taranto works will also curb output. State steel group Finisider denied that the Bagnoli cutback would be the first step towards a complete shutdown of the long-threatened works. Around 6,000 workers will be affected at Bagnoli, and a further 9,500 workers at other parts of the group will also be laid off.

(Metal Bulletin, Friday, 8 October 1984)

Finisider's plans for sharp cutbacks in its production have finally been accepted by the workforce. The deepest cut comes at the ailing Bagnoli works near Naples, which will be closed almost completely until the middle of next year. The blast furnace workers who feared the temporary closure might become permanent.

(Metal Bulletin, Friday, November 12, 1984)

Even more closures in the Italian steel industry are being demanded by the EEC Commission. The EEC has reportedly accepted that proposals for capacity cuts in the private sector are adequate, but wants another 3m tpy of public sector capacity shut.

(Metal Bulletin, Friday, March 25, 1984)

SPAIN:

The Spanish general election, to be held on October 28, means that plans for the reshaping of the country's steel industry are in abeyance.

(Metal Bulletin, Friday, October 8, 1982)

As expected (MB Dec. 3), Ensidesa has announced temporary closure of a number of its steelmaking installations because of the poor market outlook. The major Spanish steelmaker will shut the Avilés heavy plate mill from January to October 1983. Restart then depends on the market. The Verina beam mill will cut output 25%.
(Metal Bulletin, Friday, December 17, 1982)

SWEDEN:

Temporary shutdowns are planned at the iron and steelmaking plants of Sweden's SSAB this autumn in a bid to bring production down into line with the market.

(Metal Bulletin, Tuesday, October 26, 1982)

NETHERLANDS:

Hoogovens said last week it wanted to close down its subsidiary Demka, which makes wire rod and wire products at a plant in Utrecht. Demka last year produced 77,000 tonnes of rod of which half was further processed into wire, out of a capacity of 107,000 tpy.

(Metal Bulletin, Tuesday, March 22, 1983)

A decision to dissolve the Dutch-German steel company, Estel NV, has been agreed by a substantial majority of shareholders (99,2%) of Hoesch AG at an extraordinary general meeting in Dortmund.

(Steel Times, January 1983)

FEDERAL GERMAN REPUBLIC:

Krupp Stahl's plan to close the six semis and heavy section mills at its main Rheinhausen works are to be modified. After talks with trade unions the West German steelmaker is now considering plans to keep some of its sections capacity open, saving perhaps 1,400 of the 3,600 jobs which were originally to be lost.

(Metal Bulletin, Tuesday, January 18, 1983)

Metallgesellschaft AG intends to idle its Braubach GmbH subsidiary during March and April.

(Metal Bulletin, Friday, February 25, 1983)

Two West German steelmakers have announced plans for mill closures following quickly on the EEC Commission's call for more cuts in hot rolled steel capacity. Thyssen, the country's largest steel group, plans to shut two of its four heavy plate mills, while Hoesch intends to close its light section mill on the Westfalenhütte site in Dortmund.

(Metal Bulletin, Tuesday, July 12, 1983)

UNITED KINGDOM:

The impact on the UK alloy steel scrap market of UK special steelmaker Aurora Steels' decision to shut down its melting operations (page 19) is best shown by the fact that high-speed steel scrap prices rose in the week following the announcement.

(Metal Bulletin, Friday, February 25, 1983)

With imported high-speed and tool steel taking as much as 65% of the UK market, four more Sheffield producers are cutting back. Two new rationalisation plans are now being finalised, involving capacity reductions in an attempt to restore competitiveness. The two schemes involve Barworth Flockton and Neepsend on the one hand, and F.M. Parkin and Richard W. Carr on the other.

(Metal Bulletin, Friday, November 12, 1982)

Company closure: London works steel company has fallen victim to the steel recession and has been wound-up.

(Steel Times December 1982)

British Steel Corp. is to close its 1.8m tpy slabbing mill at Ravenscraig after gradually running down operations.

(Metal Bulletin, Tuesday, April 19, 1983)

Rumours circulated at the weekend that George Cohen + Sons' Proler shredder plant was to be permanently shut down could not be confirmed last Friday by a company spokesman.

(Metal Bulletin, Wednesday, May 4, 1983)

Aurora Steels Ltd is to close down its Openshaw special steels plant in Manchester.

(Metal Bulletin, Friday, February 25, 1983)

DEVELOPING WORLD

MEXICO:

Mexico's state steelmaker, Sidermex, plans to shut down part of its Ahmsa operations because of poor domestic demand for steel.

(Metal Bulletin, Friday, February 25, 1983)

INDIA:

India's first universal beam mill is to be imported for installation at the Visakhapatnam integrated works being built with USSR help. Three foreign companies are reported to have offered to supply such a mill, which will be the largest item of plant ordered so far for Visakhapatnam. However, the whole future of the project is said to be threatened by the meagre provision of funds planned for the new fiscal year.

(Metal Bulletin, Tuesday, April 12, 1983)

Stage one of Visakhapatnam steelworks will start up in early 1986 and stage two the following year.

(Metal Bulletin, Tuesday, May 17, 1983)

NIGERIA:

Civil engineering work on Nigeria's Ajaokuta integrated steelworks is at a virtual standstill because funds have run out and the contractors are in dispute about increased costs.

JAPAN

Nibrasco, the CVRD-Japanese joint venture pelletizing plant, should be shut down completely for almost four months this year. CVRD had been pressing its Japanese partners to approve the continued operation of both of Nibrasco's two 3m tpy plants at Tubrarao this year, but falling orders had persuaded the Japanese that one of the plants should be shut down.

(Metal Bulletin, Friday, April 15, 1983)

