COMMISSION OF THE
EUROPEAN COMMUNITIES

Directorate-General
Social Affairs

THIRD REPORT
OF THE STEEL INDUSTRY
SAFETY COMMISSION

EUR 6547

Luxembourg, April 1972

1. CONTENTS

ANNEXES

2. FOREWORD

As far as the European Community was concerned, 1971 was marked by the decisions to enlarge the existing Community, by significant monetary developments, and by the progress made towards attainment of the objectives of The Hague summit.

Production in the steel industry declined from 109,191,000 tons of crude steel in 1970 to 103,347,000 tons in 1971, due to a worsening in the general short-term economic situation of industry in most member countries, the effects of measures adopted last summer with regard to exports to the United States and the uncertainty of monetary policies which inhibited export opportunities.

Orders in hand decreased and selling prices left enterprises considerably narrower profit margins than in the past.

The rationalization of steelworks and establishment of new structures in those which have merged or are in the process of merging often means that responsibilities are transferred horizontally and not simply vertically. Consequently, the various departments of one factory may be controlled by different officials at the group headquarters and not by the works manager alone. In cases of this sort the need for cooperation between the various departments and the officials on the spot becomes more acute in a large number of fields and in particular in that of work safety and health.

Technical progress in the steel industry continued; newly operational blast furnaces are larger both in size and production capacity; the basic Bessemer and open-hearth steel manufacturing processes are increasingly giving way to electrical and above all oxygen processes, and the number of continuous casting plants is increasing. These are just some of the most striking developments of recent years.

As regards industrial accidents, results for 1971 were not known at the time the present report was approved because of the relatively long procedure of collecting and processing information received from the various works. It is not yet possible, therefore, to ascertain whether the deterioration which appeared from 1967 to 1970 and is analysed in this report has continued or whether the situation has in fact improved.

3. ANNUAL GENERAL MEETING OF THE COMMISSION

At its annual general meeting held on 18 June 1971 the Commission:

- examined the European Parliament's resolution regarding the 1st report of the Steelworks Safety Commission;
- decided to change its title to "Steelworks Safety and Health Commission"
- examined its 2nd report in detail;
- discussed the results of the accident prevention symposium organised by the Commission of the European Communities in October 1970;
- approved the findings of the "Safety - Tapping the blast furnace" Working Party on the subject "Plugging Materials" (see item 4.4.);
- approved the proposed organisation, together with Industriegewerkschaft Metall, of an information session on accident prevention to be held in Dortmund in October 1971 (see 5.1. for details);
- approved a proposal by the Secretariat that a film on the Commission's accident prevention principles should be prepared in 1972;

- took note of the report submitted by the Commission Secretariat on its activities.

4. WORKING PARTY ACTIVITIES

These will be considered in the following order:

- general studies
  - "Organisation of accident prevention" Working Party;
  - "Safety - Training" Working Party;
  - "Aid and Rescue" Working Party.
- technical studies
  - "Safety - Tapping the blast furnace" Working Party;
  - "Safety - Overhead Travelling cranes" Working Party;
  - "Safety - gas lines" Working Party;
  - "Safety - oxygen lines" Working Party;
  - "Use of explosives in the blast furnace" Working Party.

4.1. "Organisation of accident prevention" Working Party

The terms of reference of this working party consist in the study of the general problems of organising safety measures and strategy in preventing accidents.

As part of its work, the working party has already submitted the following studies to the Commission:

- Principles of accident prevention (*);
- Questionnaire on the organisation of accident prevention. This study was referred back to the Working Party by the Commission for conversion into a check list, i.e. a body of questions which the steelworks can put to itself in order to conduct its accident prevention campaigns in accordance with the Commission's principles of accident prevention and thus help itself to further the

(*) Published in the Commission's 1st report.

practical implementation of these principles. The project drawn up by a British expert will be examined in 1972;

- Company accident prevention and statistics, a study to be published in 1972.

At its 8th meeting on 15 and 16 April 1971, this Working Party concentrated on initiatives to be taken to ensure that companies made regular use of means of personal protection.

The use of such means does not depend solely on a decision by the company or the workers' desire to protect themselves. A certain number of requirements must also be met, for example:

- distribution and replacement of protective equipment must be organised;
- efficient and comfortable models must be found;
- a psychological campaign must be launched to provide staff of all grades with adequate motivation to make the effort demanded of them.

Examination of this problem has not been concluded and will continue at the next meeting.

Other studies are being prepared on the following topics:

- damage control, a system of surveying accidents where no injuries are involved, in use in certain US companies and applied experimentally in Great Britain;
- the company safety programme, i.e. all the accident prevention campaigns envisaged for a certain period;
- the duties of the safety department.

4.2. "Safety - Training" Working Party

The "Safety-Training" Working Party was instructed by the Commission to examine the different aspects of safety training within the company.

The Working Party had previously completed findings on "Principles of safety training" (document published in 1969).

At its 5th meeting held on 3 December 1971, the Working Party examined the findings of research on the relationships between work safety and organisation, in the form of teaching aids suitable for worker safety training.

This party proposes as part of its study programme

- to brief works' managements on safety matters and
- to train officers with responsibility for safety departments.

4.3. "Aid and Rescue" Working Party

This party, with responsibility for examining aid and rescue structures and organisation, held two meetings in 1971, its 7th meeting on 24 and 25 February and its 8th on 25 and 26 November.

The party divided its study into the following chapters:

1 - Hazards in the steel industry and aid and rescue requirements;

2 - Workers particularly at risk;

3 - Aid and rescue personnel;

4 - Fire and rescue services;

5 - Transport of the injured;

6 - Sick bays and first aid posts;

7 - Group accidents and disasters;

8 - Arrangements with authorities and services outside the works;

9 - Check list of aid procedure.

No partial conclusions were presented to the Commission by this working party, as all the problems are interrelated. It was deemed preferable to complete examination of the various topics and coordinate them afterwards rather than submit incomplete findings which would have to be published later.

The state of progress in this party's work is very satisfactory, and its study is almost completed. The next meeting of the party in 1972 will coordinate and announce the various chapters. The findings will then be examined by the Commission.

At the request of the "Safety - Tapping the blast furnace" Working Party, the aid and rescue experts also considered the problem of extinguishing fires to clothing caused by an outburst of molten metal. This matter will be dealt with again at the first 1972 meeting of the "Aid and Rescue" party.

Finally, the working party agreed to suggest that the Commission extend its terms of reference to enable it to complete a number of specific studies on, for example, the rescue of persons inside silos, ways of lowering accident, victims from overhead travelling cranes, high-level rescue operations, etc.

4.4. "Safety - Tapping the blast furnace" Working Party

This Working Party held its 8th meeting on 18 and 19 November 1971 and completed its findings on the following two topics:

- Casting preparations;
- Machines for plugging and unplugging the furnace.

These findings will be presented to the Commission at its next 1972 meeting. It will also examine the findings of the study on safety in the cast house area adopted by the working party in November 1970 but not submitted for approval by the Commission at its meeting of June 1971.

At that meeting the Commission adopted the findings of the working party on the question of plugging materials.

Studies on the following topics have been completed by this working party:

- Oxygen distribution points and oxygen lances;
- Plugging materials;
- Personal protection of the blastfurnace man;
- Solidification processes.

According to the Party's programme, two more topics are still to be examined before its terms of reference expire. These are:

- Tapping the blast furnace;
- General measures of accident prevention in the cast house area.

4.5. "Safety - Overhead travelling cranes" Working Party

This working party did not meet in 1971. Studies completed in the course of 7 meetings and adopted by the Commission are as follows:

- access to the cab of an overhead travelling crane;
- selection and training of crane drivers.

Still on the agenda of this Working Party are the following topics:

- anti-collision devices;
- stop blocks.

Once these studies are finished, the Party will begin work on the following problems:

- cab or ground control;
- electrical equipment;
- containers, handle containers, electro-magnets, whippletrees and special gripping devices;
- emergency evacuation equipment;
- fire protection;
- general measures of accident prevention.

4.6. "Safety - Gas lines" Working Party

The experts in this working party did not meet in 1971. The 7th meeting scheduled for November 1971 had to be cancelled.

The terms of reference of the party require it to study measures of accident prevention necessary in carrying out maintenance and repair work on gas lines and apparatus.

The following findings of this working party were approved by the Commission:

- construction requirements;
- personal protection;
- gas dose levels and detection;
- sealing and degassing of lines and apparatus.

Studies currently under way are concerned with the re-pressurizing of gas and the hazards presented by the various types of gas.

Other topics to be dealt with at a later date are:
- precautions to be taken during work on degassed lines;

- work under gas pressure;
- organisation of work.

4.7. "Safety - Oxygen lines" Working Party

This Working Party met on 3, 4 and 5 March and 21, 22 and 23 September 1971 to continue work begun at its previous meeting.

During its 9th meeting in March 1971 it completed details of its findings on:

- lubricants for use in oxygen equipment;
- degreasing of oxygen lines and apparatus.

It was not possible to prepare these in time for examination by the Commission at its meeting of June 1971. This will be done at the 1972 meeting.

At its 10th meeting in September 1971 the Working Party began studies on:

- flexible lines for oxygen;
- intermediate tanks.

Since further information was required, these topics will be dealt with again at the next meeting.

The Party also agreed to revise and publish its earlier findings on shut-off devices, filters and connections, with a view to compiling a document to be used as a practical handbook for designers and fitters in particular.

The following studies carried out under the Partys terms of reference were adopted by the Commission:

- shut-off and control devices;
- pipe connections;

- safety control measuring devices;
- filters.

The terms of reference assigned to this Party when it was set up by the Commission covered the study of the various fittings and controls on oxygen lines and equipment. In 1969 the Commission decided to extend these terms of reference to include the following topics: maximum speed of oxygen flow through lines, design, dimensions and lay-out of pipes.

4.8. "Use of explosives in the blast furnace" Working Party

At its meeting of 21 November 1969 the Commission agreed that it would be useful to have certain specific problems of safety in the steel industry studied by groups of experts. The subject first selected by the Commission was the use of explosives in the blast furnace. An ad hoc party was formed and met for the first time in May 1970. It very soon became apparent that safety problems involved in the removal by explosives of linings and bears from blast furnaces were extremely complex and that the solutions employed varied considerably from one country and one works to another.

A second meeting of the party was held on 4 and 5 February 1971, general agreement being reacted on a number of points. But one more meeting at least will be necessary, to complete the findings to be submitted to the Commission. This will be held in 1972.

5. OTHER ACTIVITIES

5.1. Dortmund information session

As part of the activities of the Steel Industry Safety Commission the Commission of the European Communities, together with

Industriegewerkschaft Metall, organised an information session in Dortmund on 20 and 21 October 1971. It was attended by more than 250 people, including works managers, engineers, safety department heads and workers' representatives.

The programme for this information session was as follows:

20 October:

- Opening address by the Chairman, Mr. W. MICHELS, Executive Director of IG Metall, Member of the Steel Industry Safety Commission and Bundestag deputy -
- "Improved work safety, a political and social objective of the German federal government", address by Mr KRIESCHE, Ministerial-direktor of the German Federal Ministry of Labour and Social Affairs -
- "The Steel Industry Safety Commission", address by Mr. F. VINCK, Honorary Director-General for "Social Affairs" of the Commission of the European Communities -
- "Accident prevention principles of the Steel Industry Safety Commission", address by Mr H. BECKER, Chief Safety Engineer for Stahlwerk Röchling/Burbach GmbH, Member of the "Organisation of accident prevention" Working Party of the Commission -
- "Worker cooperation in work safety", address by Mr N. DUBOIS, Chief Administrator at the Directorate for Industrial Safety and Medicine of the Commission of the European Communities, Secretary of the Steel Industry Safety Commission -
- "Methods of work safety organisation as part of company policy", address by Mr S. HEIDBERG, Arbeitsdirektor of the Stahlwerke Peine-Salzgitter AG -
- "Duties of the security department as part of the overall organisation of work safety", address by Mr G. HOPPE, Senior Engineer, Head of the

Work Safety division of Thyssen-Niederrhein GmbH, Member of the "Safety - Training" Working Party of the Steel Industry Safety Commission -

- "Worker cooperation in the organisation of accident prevention", address by Mr M. SCHWARZ, Vice-President of the Hütten- und Walzwerk Berufsgenossenschaft (steelworks' association), President of the "Arbeitsgemeinschaft der Sicherheitsleute" (safety personnel association) of the Hütten- und Walzwerk Berufsgenossenschaft (steelworkers' association).

21 October:

- "Training and safety", address by Dr H. KARL, Head of the Work Study Division at Hoesch AG, Member of the Steel Industry Safety Commission -
- "Specific job training", address by Mr P. NOELL, Betriebsdirektor, Hoesch Hüttenwerke AG -
- "Training of foreign workers", address by Mr F. KUEBEL, Arbeitsdirektor of Thyssen-Niederrhein GmbH -
- "Executive training", address by Dr P. COMPES, Director of the Accident Research Institute of the Rhineland Supervisory Association, Head of Safety Instruction at the Technical University of Aachen -
- "Protective working equipment in jobs peculiar to the steel industry", address by Dr A. ERENZ, Head of the Technical Inspection Department of the Hütten- und Walzwerksberufsgenossenschaft, Essen, Member of the "Safety - Oxygen" Working Party of the Steel Industry Safety Commission.

The findings of this information session were summed up by Dr U. VIDALI, Director of the "Industrial Safety and Medicine" Directorate of the Commission of the European Communities, and the closing address was given by Mr W. MICHELS.

5.2. Collaboration with the C.I.S.

Collaboration with the C.I.S. continued in 1971 with the compilation of a bibliography on transport and handling. This booklet will contain some 150 analyses of studies and articles recently published on the subject and will be distributed in the first few months of 1972.

5.3. Diffusion of documents

The European Parliament recently asked for details of diffusion of documents issued by the Steel Industry Safety Commission. Documents distributed to date are listed once more below:

- Report on the information session held on 29 and 30 November 1966;
- Principles of accident prevention;
- Implementation of accident prevention principles in Great Britain;
- Access to the cab of an overhead travelling crane;
- Personal protection of the blastfurnace man;
- Construction design permitting maintenance and repairs to gas lines and apparatus;
- Principles of safety training;
- Distribution point for oxygen and oxygen lances;
- Personal protection - Gas dose levels;
- Shut-off and control devices on oxygen lines;
- Selection and training of crane drivers;
- Oxygen line connections;
- "Noise" bibliography;
- 1st and 2nd reports of the Steel Industry Safety Commission.

These documents are sent to:

- steelworks and companies (company and works managements,

safety departments in companies and steelworks);
- employers' professional organisations and steelworkers' unions;
- official labour and mines inspectorates;
- national industrial federations;
- social security and industrial accident insurance bodies;
- engineers' associations and those of safety department heads and company doctors;
- safety institutions and accident prevention bodies;
- safety delegates;
- organisations or companies which request information;
- a certain number of international organisations.

In 1971 the mailing list was revised and expanded, nearly 250 new addresses being added. It should be noted that the Commission's Secretariat is often asked for Commission documents by bodies or companies both inside and outside the Community and from sectors of industry other than the steel industry. 127 such requests for a total of 448 documents were made in 1971.

As suggested by the European Parliament, efforts will be made in 1972 to include professional training centres and technical colleges in this list.

6. INDUSTRIAL ACCIDENTS IN THE EUROPEAN COMMUNITY STEEL INDUSTRY

The Statistical Office of the European Communities compiles industrial accident statistics on the basis of information

received from employers' professional organisations in each of the member countries which first collect this information from the steelworks.

The statistical values are published every year by the Statistical Office in a document in the "Social Statistics" series entitled "Industrial accidents in the steel industry".

Calculation methods are identical for each country, which enables comparisons to be made. Thus, each company can compare its accident rate with the average rate for similar-sized companies in the same country.

Comparisons between countries should be made with some care since a number of social factors unrelated to the accident may influence the choice of cases for inclusion in the statistics. The need for such caution was explained in the Commission's second report and we consider that it still applies.

Table I gives principal statistics on industrial accidents from 1960 to 1970 in the Community steel industry taken as a whole. It should be recalled that when this report was approved, statistics for 1971 were not yet available. As in previous reports, industrial accidents in the iron and steel sectors of the various Community countries are shown in diagrams annexed to the report.

Fatal accidents and those requiring absence from work increased from 1967 to 1970 in the Community and in most other countries. It may be noted, however, that in the Netherlands figures have steadily improved, and the incidence of accidents requiring absence from work fell from 70 in 1964 to 42 in 1970.

The general situation is disquieting, and efforts should be made to

establish the reasons for its deterioration. But the problem should be viewed in its proper perspective.

The incidence of industrial accidents covered by the statistics does not include accidents involving injury and an absence from work of at least one day. Hence the statistics do not measure dangerous accidents as a whole, but the consequences of human and social significance of part of these accidents.

This leads to the claim that the incidence of accidents considered in the statistics is not a reliable indication of the safety of a company or the success of its accident prevention campaigns. It is an interesting survey, but crude and inadequate as far as accident prevention is concerned. Furthermore, the criterion by which the accident is recorded, i.e. absence from work the day after, is influenced by a whole series of extraneous factors. These may be the industrial experience of doctors responsible for deciding that the victim is to stop work, motivation of workers to seek treatment of any injury however minor, the way in which victims are compensated (which varies greatly from one country to the next) and the way in which workers are paid (monthly for example).

At current levels of knowledge it is impossible to evaluate the influence of these different factors in each individual country or profession. It is therefore difficult to interpret the accident prevention statistics available to us.

Nevertheless a number of theories can be advanced to explain the rise in "industrial accidents".

One noteworthy theory is that of a link between accidents and production.

Table II gives crude steel production figures for the Community from 1960 to 1970.

After remaining virtually unchanged from 1960 to 1963, production sharply increased from 1964 onwards, from 73 million tons of crude steel in 1960 to 109 million tons in 1970, a rise of almost 50 %.

Table III shows 1960 and 1970 production using the various steel making processes, together with the percentage of total production for each of the two years accounted for by each process. This table reveals that the steel industry has undergone great changes, partially abandoning certain processes and widely adopting new techniques. The introduction of these required the installation of new, large-capacity equipment. It is logical to suppose that this modern equipment made it possible to eliminate a certain number of accident hazards, but it also brought with it either new hazards, or an increase in existing hazards through more frequent use. Personnel had to be trained to use this new equipment correctly and to recognize the new hazards.

Not least, the actual increase in production entails a widening of certain activities, such as transportation and handling, and a corresponding growth in the frequency of hazards.

The relationship between production and accidents, then, is very complex and certain specialists, without denying that this relationship exists and basing themselves on their own experience, consider that its influence is slight and may even be positive, particularly in companies where workers receive extensive prior training.

Another theory advanced in explanation of the rising frequency of accidents is the increasing employment of foreign workers.

The Statistical Office of the European Communities, in its publication "Social Statistics - industrial accidents in the steel industry", No. 6 - 1970, commented on this as follows:

"... the growth in accident frequency observed in a number of countries between 1963 and 1965 coincides with a certain increase in the relative numbers of foreign labour employed in the steel industry. From 1963 to 1964, accidents rose by 15 % in the Netherlands, 9 % in Germany, 7 % in Belgium and 1 % in Luxembourg. At the same time, the number of foreign workers rose by 95 % in Germany, 72 % in the Netherlands, 25 % in Luxembourg and 16 % in Belgium. From 1964 to 1965 the number of foreign workers increased further in Luxembourg (13 %), in Germany (11 %) and in the Netherlands (2 %), whilst in Belgium the numbers fell by 5 %. During the same year, the incidence of non-fatal accidents also rose by 3 % in Luxembourg and 1 % in the Netherlands.

From 1967 to 1968 the number of foreign workers in Germany rose by 35 %, but there was virtually no change in the other countries. Germany was the only country over the two years in question to register an increase of any size (some 10 %) in the incidence of non-fatal accidents.

Between 1968 and 1969, foreign labour rose again in the German steel industry by 38 % and the accident rate also increased by 6 %. In France the number of foreign workers went up by 6 % and the accident rate worsened by almost 9 %. In Luxembourg a 12 % growth in the number of foreign workers was also accompanied by a growth in accident risks of some 10 %.

It would therefore appear that there is a certain coincidence between the two phenomena, but it is not possible to establish it beyond all doubt."

A number of enterprises have conducted internal surveys and their findings, which are very convincing, may be summarised as follows:

- foreign workers are employed during periods of economic prosperity;
- they are most frequently employed in relatively heavy handling jobs;
- foreign workers change their company or type of work much more often than nationals;
- special difficulties are created by the foreign worker's distance from home, his living conditions and inability to adapt sufficiently to new surroundings.

It is found, however, that foreign workers do not account for more accidents than nationals, when their experience and the work done is the same.

In other companies, foreign workers employed have for the most part already worked elsewhere in their country of adoption and are thus partly assimilated. In their case, the accident rate was not found to be higher than for nationals.

The problem, then, is complex and a comprehensive approach to the question of foreign workers is essential, as it involves a large number of human aspects in addition to economic and technical factors.

7. OBJECTIVES

Whatever the reasons noted in recent years for the increase in accident rates and whatever the results expected in future, the whole problem of industrial accidents and their prevention is indubitably a matter for each company to consider, and only by concerted campaigns on the part of all interested parties within the company can there be any hopes of improving the present situation.

The Steel Industry Safety Commission is pleased to note that its work, publications and information sessions are encouragingly

received by all interested parties within companies, and in the steel industry in particular. The Commission aims to contribute in the best way possible to a reduction of accidents by publicising as much as it can the findings of its studies on optimal working methods and practices, both as regards the organisation of accident prevention and the design or use of dangerous processes or equipment. It also aims to promote exchanges of information, and to collaborate in the diffusion of directly applicable findings obtained from basic or applied scientific research.

The Commission believes that wider dissemination of the accident prevention principles it has adopted may lead to better individual awareness of responsibilities and of the pertinence and efficacity of accident prevention campaigns which are properly planned, carefully programmed and dynamically implemented. In accordance with these principles it has approved a project suggested by the Commission of the European Communities for the preparation of a film on principles of accident prevention, and it hopes to make this film available as soon as possible.

It also believes that it is not only desirable but also necessary to continue and even expand the work it is engaged on in other directions it has chosen or may choose in future, since the value of its own particular methods has been proved beyond doubt.

The Commission is extremely interested in the findings of research conducted with ECSC financial aid on all aspects of industrial safety, health and medicine which may help to improve working conditions in its own sector of industry, and it is similarly pleased to note that its activities are of interest to other sectors of industry also.

ANNEX I

Table I

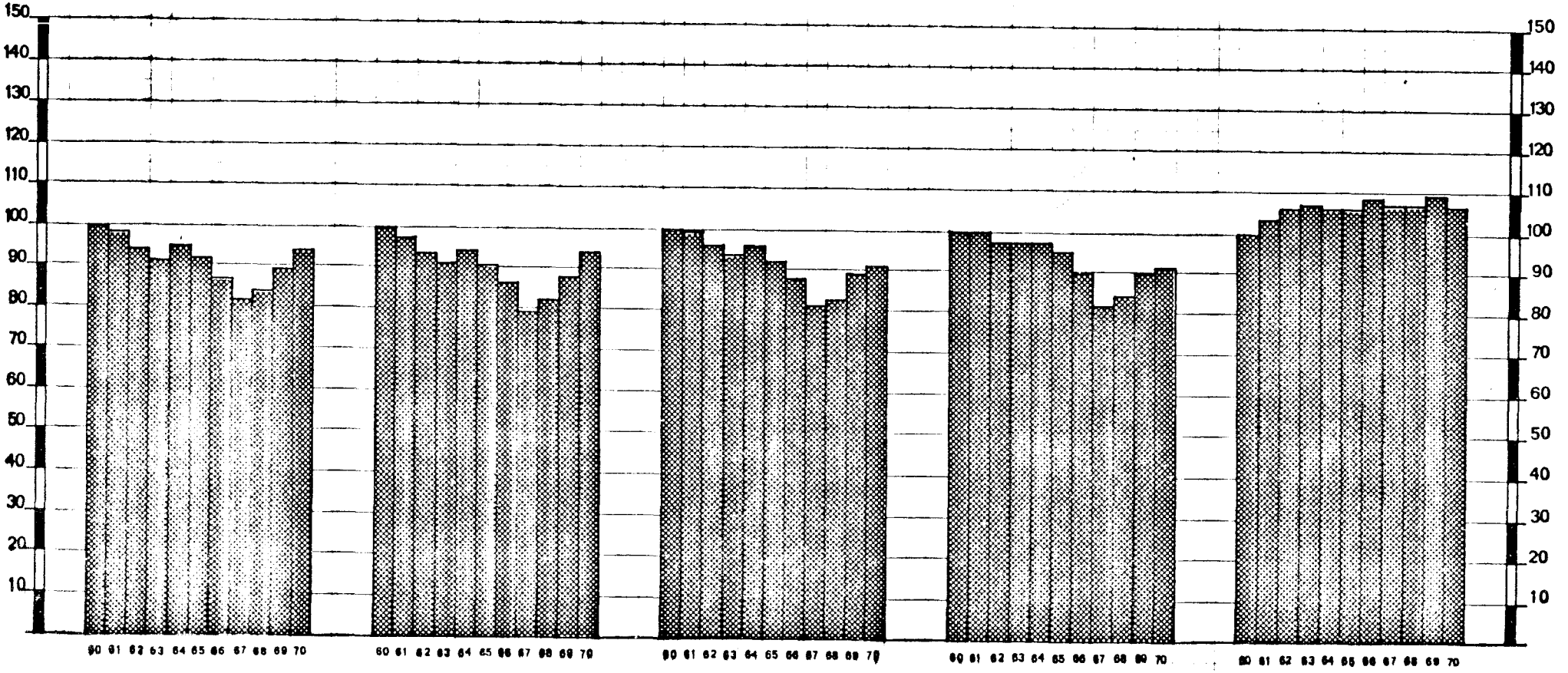
ACCIDENTS IN THE COMMUNITY STEEL INDUSTRY

	Workers employed	Fatal accidents	Accidents requiring absence from work	Rate of incidence (1)	Calendar days lost	Hours lost per 1,000 hours worked	Days lost due to accident
1960	494.264	198	102.686	98	1.735.370	9,59	16,9
1961	501.332	168	100.656	96	1.747.758	9,55	17,4
1962	469.041	192	88.142	92	1.576.954	9,21	17,9
1963	464.702	148	84.496	89	1.527.193	8,98	18,1
1964	468.836	151	88.395	93	1.580.937	9,21	17,9
1965	460.564	167	83.479	90	1.492.686	8,88	17,9
1966	442.123	115	73.687	85	1.355.529	8,40	18,4
1967	426.329	107	66.628	80	1.206.785	7,76	18,1
1968	418.916	136	66.962	82	1.212.514	7,91	18,1
1969	424.273	136	71.686	87	1.323.955	8,55	18,5
1970	433.024	133	76.802	92	1.387.454	8,78	18,1

(1) Rate of incidence: number of accidents requiring absence from work per million of hours worked.

CECA — EGKS

1960 = 100



Taux de fréquence des accidents avec un arrêt de travail d'un jour au moins

Taux de fréquence des accidents avec arrêt de travail de plus de trois jours

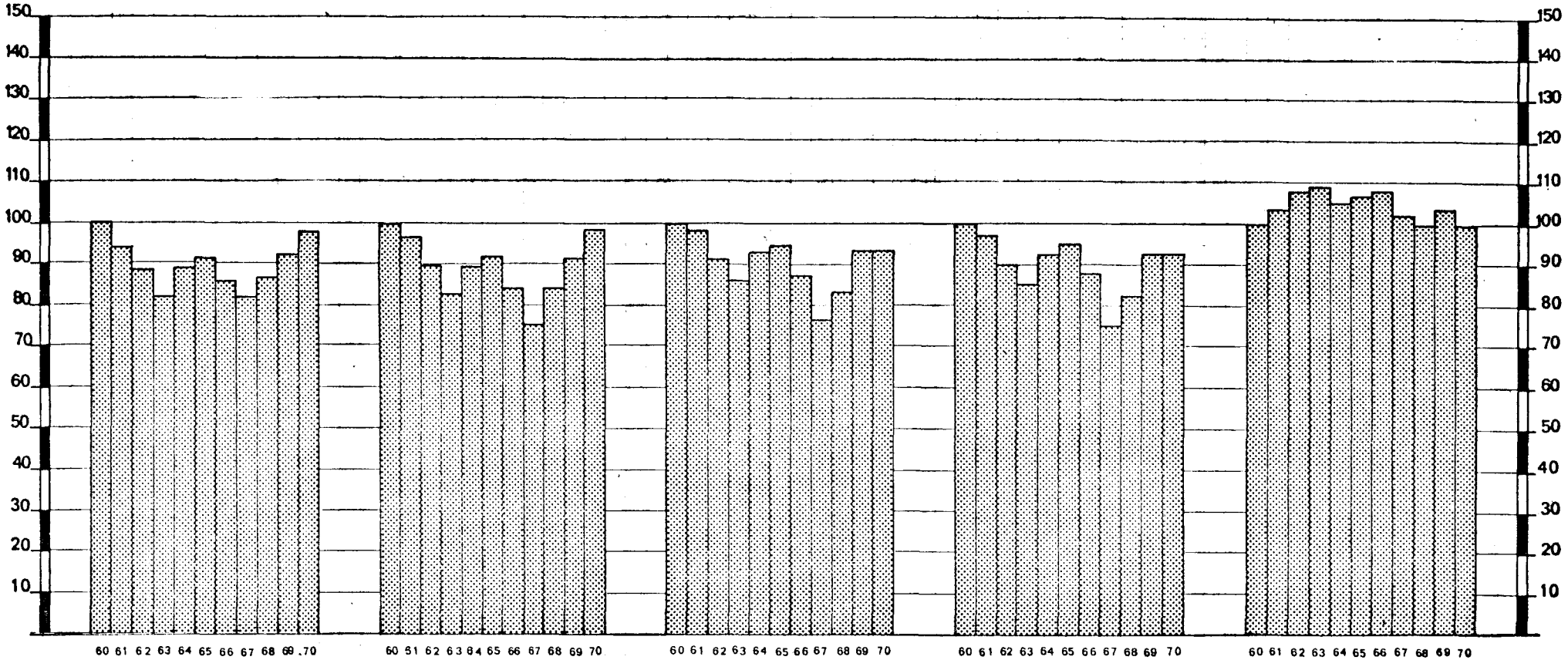
Nombre d'heures perdues pour 1000 heures de travail

Nombre de journées calendrier perdues par ouvrier

Nombre de journées calendrier perdues par accident

DEUTSCHLAND

1960 = 100



Haeufigkeitsgrad der Unfaelle mit mindestens einem Tag Arbeitsunterbrechung

Haeufigkeitsgrad der Unfaelle mit mehr als drei Tagen Arbeitsunterbrechung

Zahl der ausgefallenen Arbeitsstunden auf 1000 geleistete Arbeitsstunden

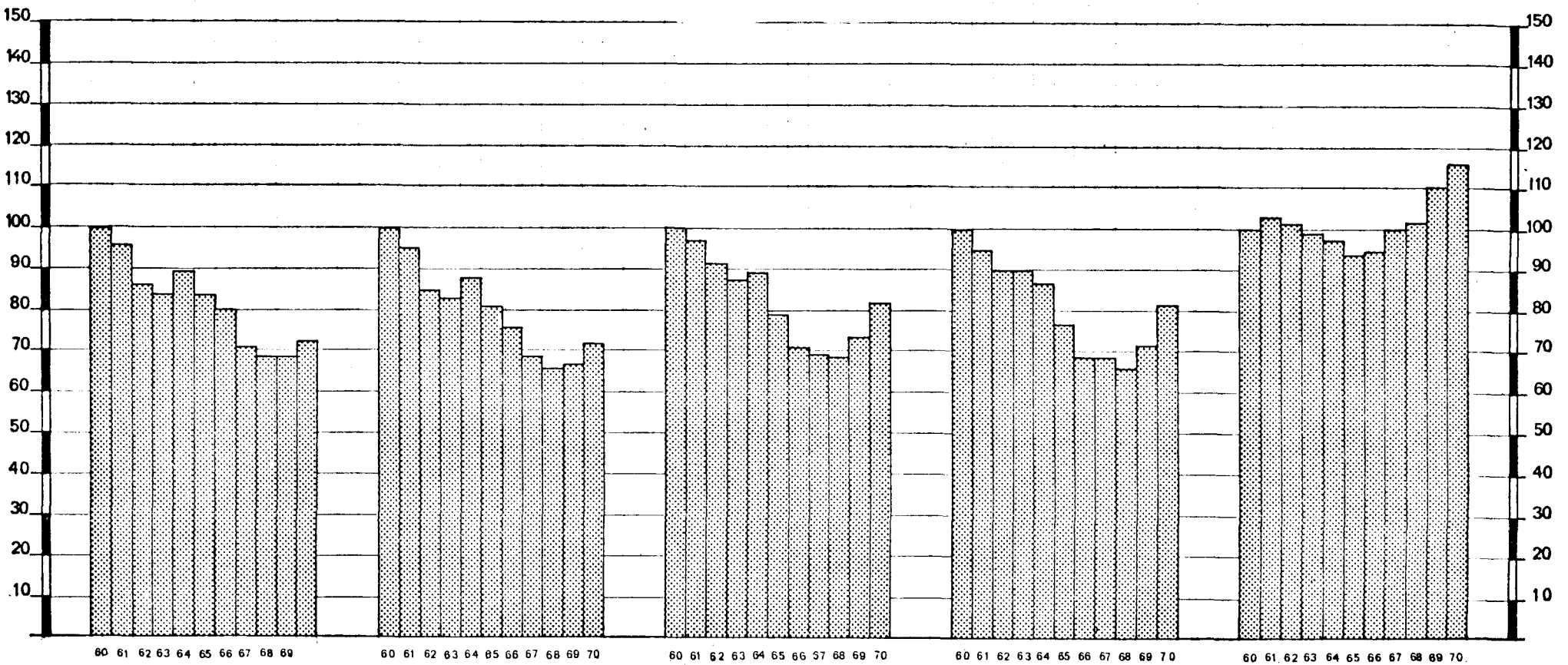
Ausgefallene Kalendertage je Arbeiter

Ausgefallene Kalendertage je Unfall

ANLAGE
ANNEXE
ALLEGATO
BIJLAGE 2

BELGIQUE

1960 = 100



Taux de fréquence des accidents avec un arrêt de travail d'un jour au moins

Taux de fréquence des accidents avec arrêt de travail de plus de trois jours

Nombre d'heures perdues pour 1000 heures de travail

Nombre de journées calendrier perdues par ouvrier

Nombre de journées calendrier perdues par accident

ANLAGE
ANNEXE
ALLEGATO 2
BIJLAGE

FRANCE

1960 = 100

Taux de fréquence des accidents avec un arrêt de travail d'un jour au moins

Taux de fréquence des accidents avec arrêt de travail de plus de trois jours

Nombre d'heures perdues pour 1000 heures de travail

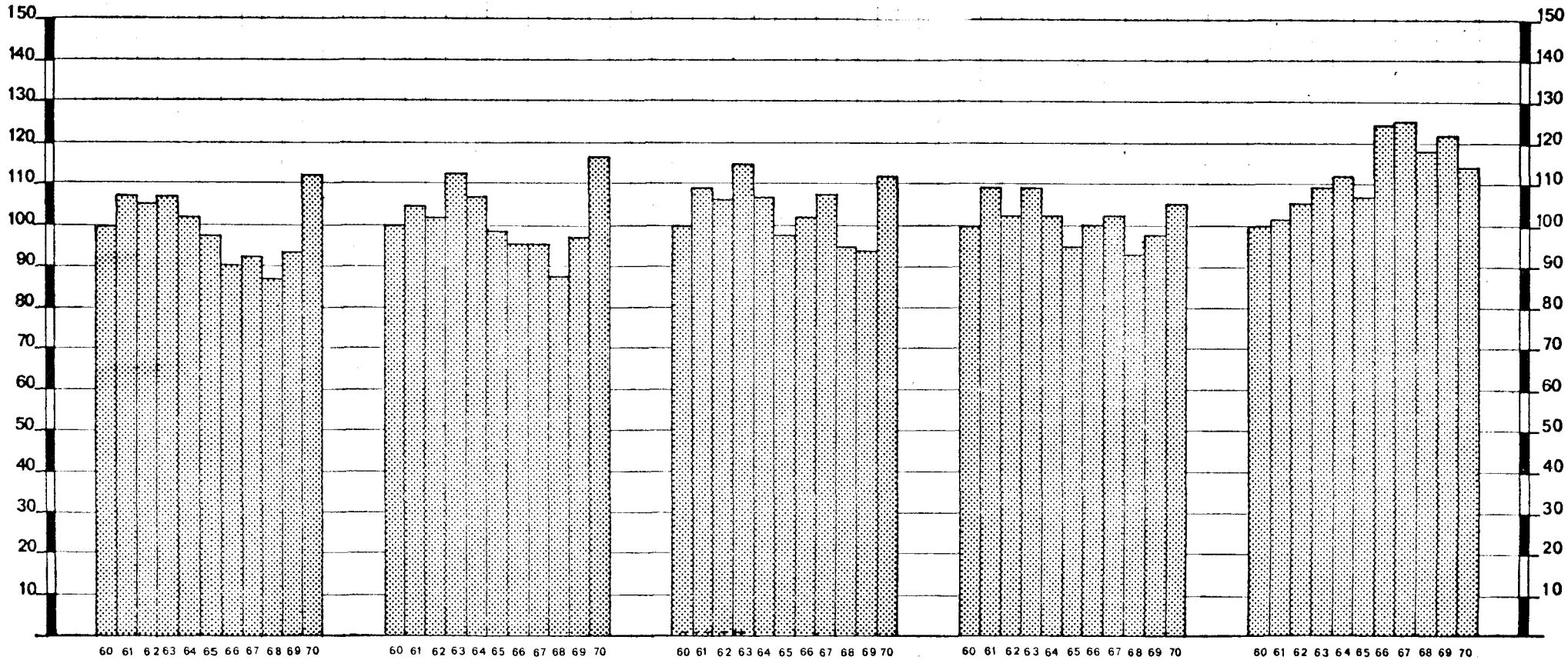
Nombre de journées calendrier perdues par ouvrier

Nombre de journées calendrier perdues par accident

ANLAGE
ANNEXE
ALLEGATO 2
BIJLAGE

ITALIA

1960 = 100



Tasso di frequenza di infortuni con interruzione del lavoro di almeno 1 giorno

Tasso di frequenza di infortuni con interruzione del lavoro di più di 3 giorni

Numero delle ore perdute per ogni 1000 ore di lavoro

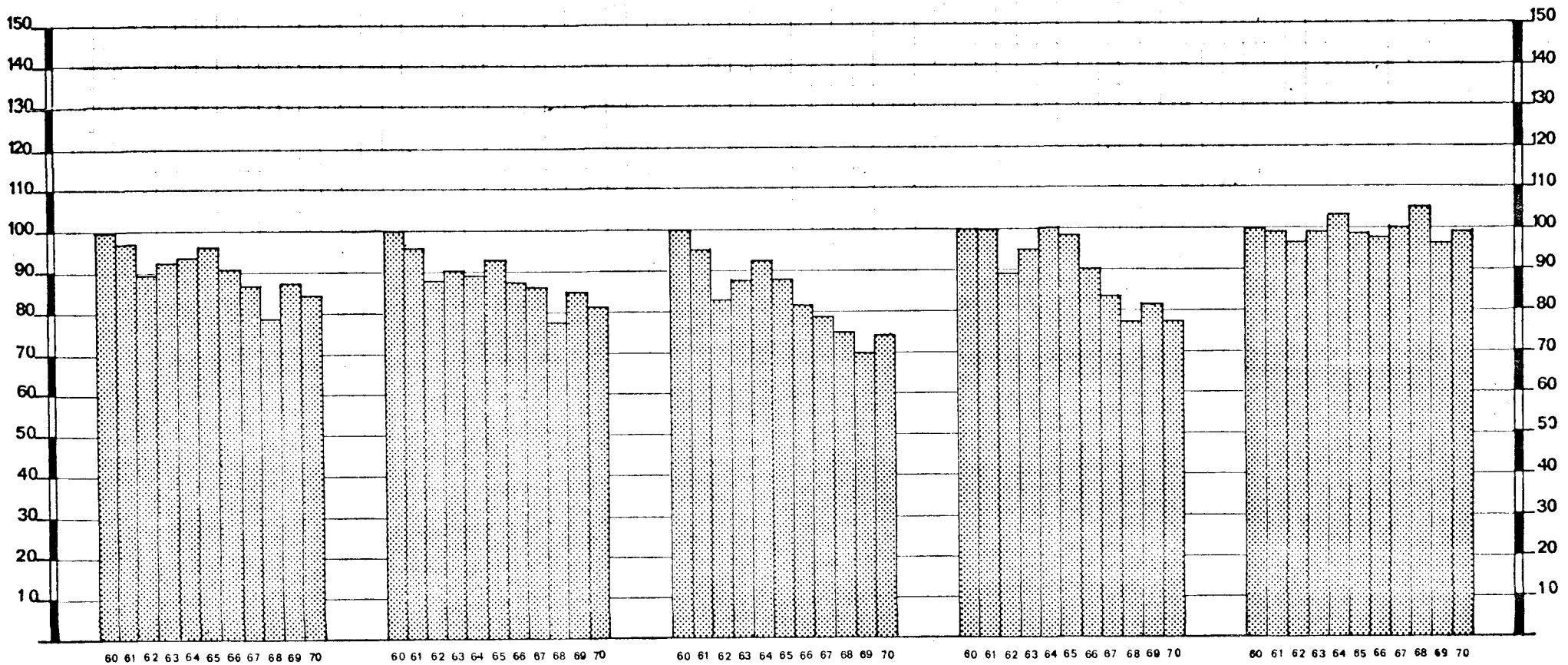
Giornate di calendario perdute per operaio

Giornate di calendario perdute per infortunio sul lavoro

ANLAGE
ANNEXE
ALLEGATO 2
BIJLAGE

LUXEMBOURG

1960 = 100



Taux de fréquence des accidents avec un arrêt de travail d'un jour au moins

Taux de fréquence des accidents avec arrêt de travail de plus de trois jours

Nombre d'heures perdues pour 1000 heures de travail

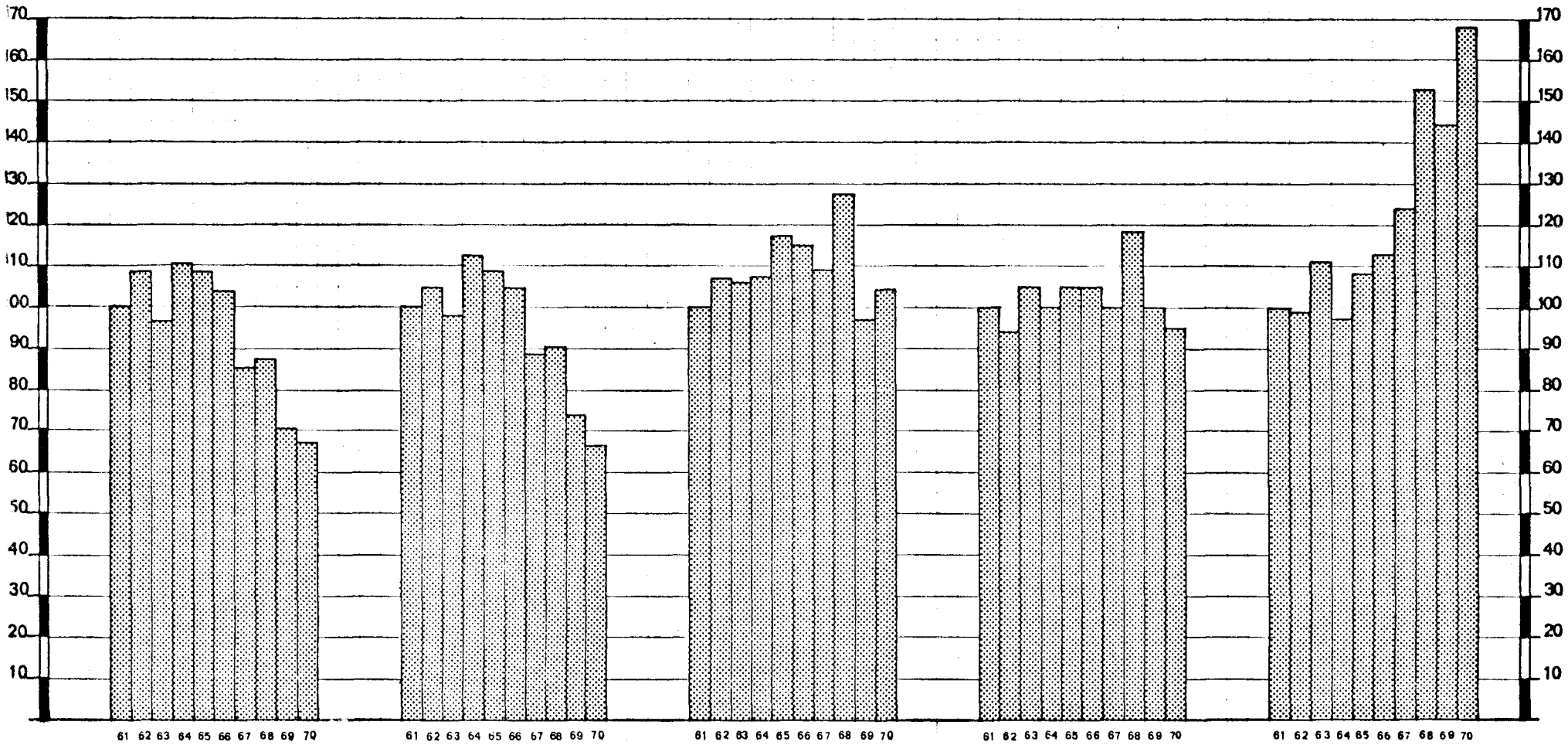
Nombre de journées calendrier perdues par ouvrier

Nombre de journées calendrier perdues par accident

ANLAGE
ANNEXE
ALLEGATO 2
BIJLAGE

NEDERLAND

1961 = 100



Frequentiegraad van de ongevallen met een verzuim van minstens één dag

Frequentiegraad van de ongevallen met een verzuim van meer dan drie dagen

Aantal verloren uren per 1000 arbeidsuren

Aantal verloren kalenderdagen per arbeidei

Aantal verloren kalenderdagen per arbeidsongeval

ANLAGE
ANNEXE
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BIJLAGE

ANNEX 2

Table II

Annual crude steel production in the Community from 1960 to 1970

1960	73.076.000 tons
1961	73.511.000 tons
1962	73.011.000 tons
1963	73.218.000 tons
1964	82.856.000 tons
1965	85.991.000 tons
1966	85.105.000 tons
1967	89.885.000 tons
1968	98.634.000 tons
1969	107.319.000 tons
1970	109.191.000 tons

ANNEX 4

Table III

Crude steel production in the Community in 1960 and 1970 according to manufacturing process

Process	1960		1970	
	Production in 1.000 tons	%	Production in 1.000 tons	%
Thomas	35.920	49,2	21.946	20,1
Siemens-Martin	27.358	37,7	22.181	20,3
Electric	7.821	10,7	14.943	13,7
Oxygen	1.593	2,2	50.060	45,9
other	214	0,2	60	-
Community	73.076	100,-	109.191	100,-