

STEINMÜLLER
IN-HOUSE MAGAZINE 1/86



BLOWTHROUGH

EDITORIAL

In previous issues of Blow-through we have pointed out the need for all of us to become more efficient, to work more productively and to better satisfy market demands. This need continues, and even more so now because of the turbulent times in which we find ourselves. The economy is depressed and a drop in workload, shortened working hours and limited retrenchment are a reality. On the political front unrest and dissatisfaction continue and the need for social change is now imperative. Steps to meet new challenges and demands, whether political, economic or social cannot be taken in isolation and without consideration of the effect on the other areas because, factors economic, political and social are directly linked and interact upon one another.

Through the introduction of meaningful training programmes, an aggressive diversification drive and a streamlining of work systems we at Steinmüller have, to a

large extent lessened the economic hardship for our employees and ensured the future financial stability of our Group. But this is not enough. We have to do more and we have to do it now otherwise the steps already taken will have been worthless. The present mood of doom and gloom about our future will persist and become self fulfilling unless we correct this trend now. Resistance to change is a natural human phenomenon, but at least we know that, and can therefore endeavour to overcome such feelings of resistance.

Recent political changes and developments now make it easier for us to take the initiative, to actively get involved and to bring about a new era which will be to the benefit of all of us who wish to live in South Africa. We must stop talking and start doing. To carry on blaming others and/or waiting for them to act will get us no where. Each one of us – from the chief executive to the worker on the shop floor – can do his bit.

Don't wait for an instruction, begin now to change the current mood by acting positively within your area of influence – bring an end to those practices which degrade, humiliate and cause resentment amongst our people. If we all act with a little more consideration, a little less selfishness and a desire to satisfy wherever possible, the aspirations and needs of those less fortunate than us, then we have no doubt that things will change for the better.

The alleviation of serious social problems is a priority matter and one which must be recognised by all. Fundamental to the principle of orderly, stable and satisfied communities is the provision of proper homes. A great number of people in South Africa go without this basic need. Let us change this, and all contribute in one way or another.

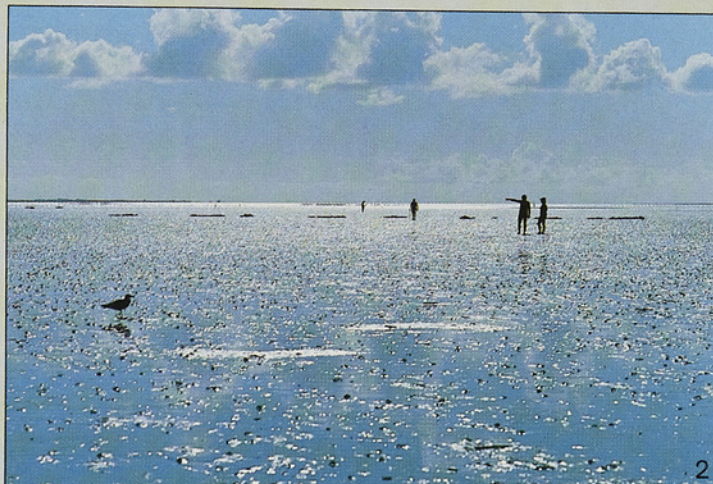
We are doing our bit – and we call upon you to do yours.

Steinmüller's Rivonia Head Office.



Routes to tour in Germany

The Green Coast Route



German roads will get you there – wherever people live and there are sights worth seeing. Old churches or half-timbered houses, changing landscapes or townships. There are just too many impressions, so many people find it hard to see at a glance what would suit their personal taste. Which is why we in Germany have laid out well-marked tourist routes concentrating on a special feature. Take the coast. We are keen

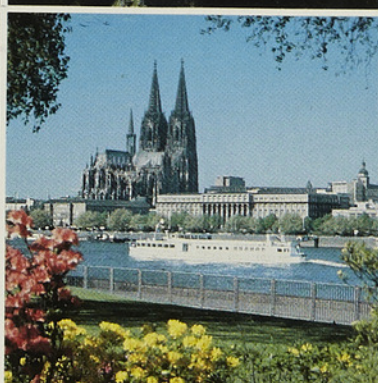
Europeans and happy to share the Green Coast Route with the Dutch, Danes and Norwegians. But we do feel that we in the north-west of Germany have the most varied section of the route. Offshore there are the North and East Frisian islands. Then there are the rivers Elbe, Weser and Ems. There are moors and forests, holiday resorts with all manner of recreational facilities. Spas. Castles and museums. And the Hanseatic

cities of Bremen and Hamburg with their art galleries, theatres and shopping streets.

Come and see for yourself the north-west of Germany. The Green Coast Route will be your guide.

- 1 Hamburg – Finkenwerder
- 2 North Frisian mud-flats
- 3 Oldenburg Castle
- 4 Greetsiel/East Friesland
- 5 "Altes" Land nr. Hamburg

If you want to travel round Europe make sure you go through the centre.



G.P.B.M. & B. 73856

To Lufthansa
P.O. Box 1083
Johannesburg.

I'd like to know more about those great sounding German travel deals,
please rush me a brochure. (please tick).

Name

Address

.....

.....

☐

hansatours

☐

Airport Express

If you're used to seeing Europe from the top down or the bottom up, we'd like to suggest an alternative. From the centre. That's Germany, naturally. Because from Germany and Lufthansa's home base at Frankfurt Airport, you can do the most amazing things. Whether you're touring or on business. From hansatours

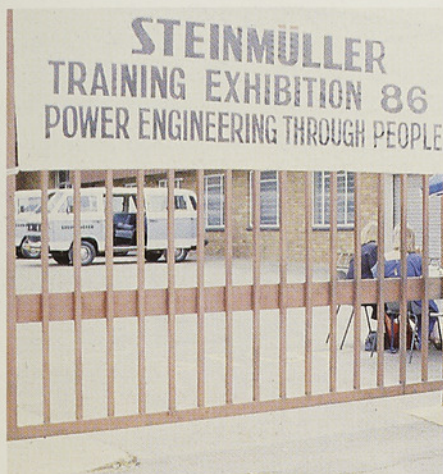
of Germany, Avis Fly and Drive, Eurailpass, to the Lufthansa Airport Express. Now if all those services make you think that Lufthansa's a more expensive airline, go along to your travel agent. The only surprise you'll get is the quality of our service, not the cost of the seat.



Lufthansa
German Airlines

Lufthansa offers the fastest flights from Johannesburg to Frankfurt every Monday, Tuesday, Wednesday, Friday and Sunday. From Frankfurt over 300 flights leave daily for Germany, Europe and beyond.

Training courses now available



The banner says it all.

Details of Steinmüller's in-house training know-how and a comprehensive range of specialised training and educational programmes are now offered to the South African industry. To this end a Group training exhibition was held at our Apprentice Training Centre during March, which was attended by over 120 executives from customers, clients and friends. A complete display of all technical, skilled and management development training aids were on display for all to see.

In addressing guests at the exhibition, Mr L G Freitag said "The current unrest in South Africa and its consequential spiral of negative influences on our economy cannot be dissociated from the problem of unemployment. And in the light of the ever increasing size of our population, continuing employment is dependant on economic

growth. Long term economic growth, in turn depends on our ability to develop secondary industry which is able to compete on the international market, either by way of import replacement or the ability to export manufactured goods." Mr Freitag added "if we are to accept this logic, we have to start building our foundation based on basic skills which will have to be enhanced and developed as the secondary industry grows and becomes more sophisticated."

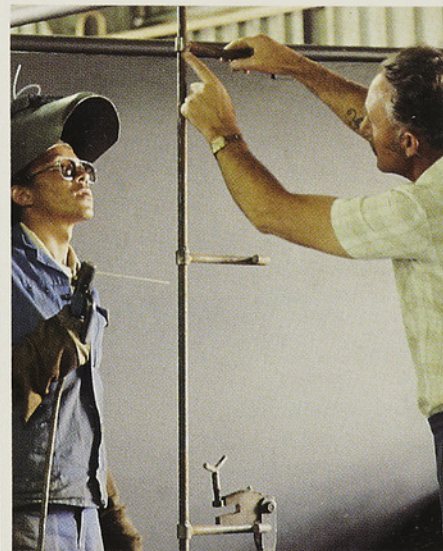
In the past the educational process has focused mainly on the white population with the main emphasis on higher education at university level. This has led to an imbalance in the educational process and this short coming has partly been hidden by the inflow of immigrants and expatriate labour



Mr J. Wolfaardt presents Mr L. G. Freitag with a CNC-machined chess set.

possessing the necessary skills in the respective technical fields. The result of this is the inefficient and unproductive labour force which makes our local industry uncompetitive.

It is for this reason that Steinmüller founded its training centre in 1981 to provide artisan training in the basic trades of boiler making, turning, fitting and turning and welding. The Group's decision to "commercialise" certain training



Hands-on training and instruction.

programmes will, it is hoped, help to correct the imbalance. The Steinmüller courses that will be available during 1986 include an apprentice trade test preparation course, a basic metal course, a CNC induction course, a workshop on zero based budgeting, a productivity measurement programme and a "hands-on" management training course.

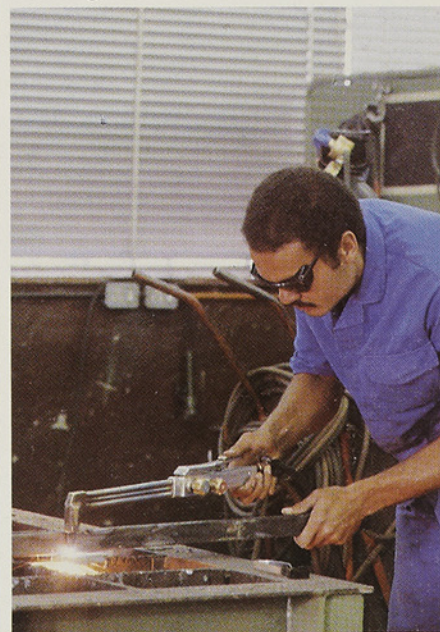


Plate cutting for welding test.

Specialised Tribology Services

— by Carl Bechem (Africa) (Pty) Ltd

Steinmüller has entered the field of upgraded/specialised lubricants by means of a joint venture with Carl Bechem GmbH of Hagen West Germany.

Carl Bechem (Africa) (Pty) Ltd offers a range of more than 500 various products for the following applications:-

Special greases for the Steel and Mining and the Power Generation Industry.

High and low temperature greases and oils.

Metal working fluids.

Special industrial gear oils.

Lubricants for the Food and Beverage Industry.

Special lubricants for extreme requirements.

The company benefits from more than 150 years experience of Carl Bechem Germany, in the field of development and manufacturing of upgraded and specialised lubricants. High performance lubricants and adequate back-up service are a very important factor in today's maintenance and equipment-design.

The existing available high quality know-how that Carl Bechem brings to the Tribology Market in South Africa, provides exceptional cost effectiveness.

This new venture with Carl Bechem is an important additional link in the total maintenance and overhaul service offered by the



Klaus-Jürgen Flis,
MD of Carl Bechem Africa.

Steinmüller Group of companies. Carl Bechem (Africa) operates from offices in Rivonia at the following address

No 8 Rivonia Produce House
cor 11th and Rivonia Rd
Rivonia

P O Box 1537
Rivonia
2128



BECHEM-RHUS

Telephone Number 803-1093/4

Telex number 4-22069

Intervalve

— A story of success

Intervalve is this year celebrating 10 years as a major supplier of valve systems to South Africa's power and chemical industry. In January 1976 Intervalve was taken over by Steinmüller in a 50/50 tie up with Sempell Armaturen of West Germany.

With advanced design and engineering know-how and a skilled field force of technicians company turn-over has gone from a modest R150 000,00 a year to over R4 million in 1985.

The company's range of valves spans an exceptionally wide field and new areas to which Intervalve's expertise and excellent products can be applied are continually being sought out.

With the possible development of the Mossel Bay Gas Industry, Intervalve is looking at new fields to conquer.

Materials handling

— a review of market conditions in South Africa

Steinmüller is involved in several areas of materials handling, but of particular interest is the Group's pneumatic conveying — the transport of solids in a pipeline using compressed air.

Steinmüller's pneumatic conveying and bulk powder storage systems are utilised in many industries such as:

- cement
- lime
- power
- chemical
- food

In many of these areas, pneumatic conveying and bulk storage of products provides the only viable and safe solution to many of the materials handling problems. Many people believe that the pneumatic conveying industry in

South Africa is in its infancy and that as yet viable systems are only at the developmental stage. This belief is entirely incorrect as is shown by the thousands of millions of Rands worth of viable working systems present throughout South African industry. The main features of pneumatic conveying systems are:-

- dust and pollution free transport
- often low complexity
- low capital cost
- low maintenance costs
- amenable to a high level of automation if required
- suitable for totally enclosed transportation of dangerous/toxic materials.

Against some of these benefits are the following points which show some of the system limitations:

- high energy consumption when compared with many of the mechanical conveying systems

- suitable for a limited range of materials
- suitable for limited conveying distances

Economic conditions at present are far from ideal and as in most other sectors, the bulk handling sector is severely depressed. However, certain factors still point to the fact that the systems offered are under utilised. Such factors are:-

1. Industry is becoming more aware of the hazards of wet disposal systems and the subsequent handling of contaminated water.
2. Many factories require better and more accurate control of the bulk powders which they use. This is as a result of more sophisticated manufacturing techniques.
3. Enclosed systems provide tamper and pilfer proof transportation of solids.
4. With the greater awareness of

the health hazards of many pulverised/dusty materials, both management, unions and government are demanding cleaner handling methods.

5. As a result of some of the above points, retrofits of obsolete equipment are necessary. Often this must be completed in cramped environments. Pneumatic conveying systems are very viable for this as pipelines can be laid carrying high tonnages at practically any routing.
6. Bulk deliveries and subsequent automatic handling provide substantial cost savings in many applications. This saving is both from the cost of the delivered powder and the in house handling.

We believe that there is light at the end of the tunnel. Although the outlook for the South African Industry may be bleak at this stage, Steinmüller as a bulk handling specialist should still be able to look forward to a viable market as more and more customers realise the tremendous potential of these systems.

Mortar batching silo's manufactured by S.A. Linde.



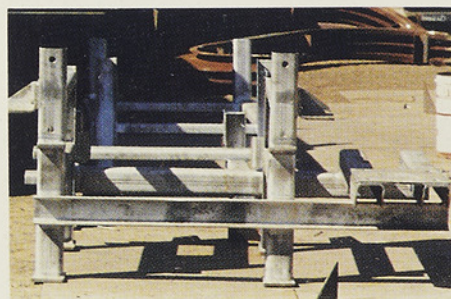
Alrode is...

Not only in the market of expansion joints, as many might believe, but also very successful in tackling and mastering other technical fields which the following will demonstrate:-

Alrode manufactured the silencer hood for the MAN turbine at Lethabo Power Station.



For Uhde SA a 3 CR 12 conveyor was produced at Alrode and during the manufacturing process Alrode developed special know-how to bend 3 CR 12 channels. The fissure rate during the bending process was lower than 1% and as a result thereof Alrode has been approved by Middelburg Steel as a qualified manufacturer for the deformation of 3 CR 12.

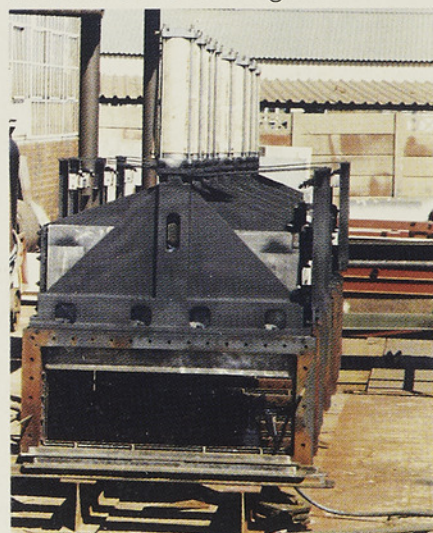


Alrode has also manufactured out of stainless steel a complicated bulk loading chute for the bulk loading of ammonium nitrate at the Sasol Explosive Plant.

Special attention is also given by Alrode to the production of standard products for the Steinmüller materials handling division,



e.g. the production of pneumatic and manual shut off gates.

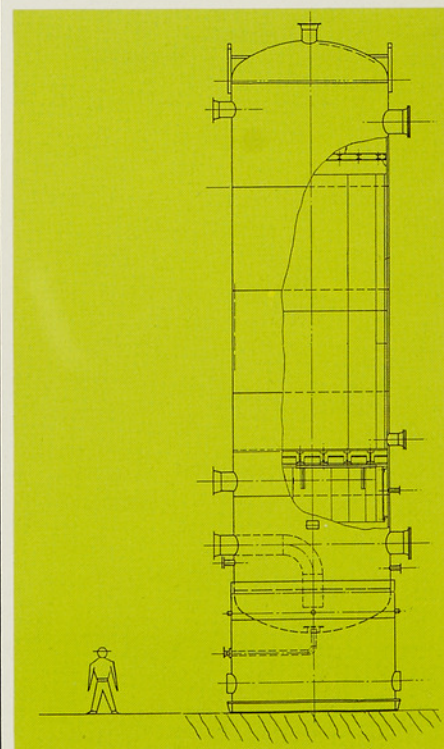


Last, but not least, Alrode's new MD Dipl. Ing. Jürgen Schneider will ensure that Alrode remains "in".

A large pressure vessel

Steinmüller recently received an order from AECl for a pressure vessel weighing over 100 tons. The vessel is a replacement component for an existing one. The original vessel has been in operation for many years and at nearly 14 m high and 4 m in diameter is an impressive sight.

The value of the order which includes material supply, manufacture and delivery to site is approximately R1 million and is the largest pressure vessel ever ordered from Steinmüller. The vessel, when placed in the furnace at Chamdor for final heat treatment will virtually fill the furnace and be the largest single item to be ever heat treated.



The design of the vessel is to the British pressure vessel code and it will be engineered by Steinmüller's engineering division in Rivonia. Fabrication, including rolling of the 60 mm thick steel shell will be done at Chamdor. Full quality assurance in accordance with the British design code will be carried out at every manufacturing stage. The design pressure is 59 bar and the design temperature 270° C. All steel for the vessel shell is to be imported from West Germany.

Delivery of the vessel is due in April 1987.

Steinmüller-Lavis

Steinmüller-Lavis
Structural Steel (Pty.) Ltd.

a member of the
STEINMÜLLER
GROUP OF COMPANIES

Engineering · Fabrication · Erection

Workshop main equipment

- 1 x NC-flame cutting machine
- 1 x Portal flame cutting machine
- 1 x Coordinate flame cutting machine
- 1 x NC-table drilling machine
- 1 x Radial drilling machine
- 1 x Floor boring mill
- 1 x Hydraulic guillotine
- 1 x Vertical hydraulic straightening press
- 1 x Sawing and drilling machine
- 1 x Shotblasting equipment
- Roller table transport line
- 1 x Carriage mounted submerged arc welding machine
- 1 x Portal welding machine
- Mig - Mag welding machines
- Welding rectifiers
- Non-destructive testing equipment

Steinmüller-Lavis Structural Steel (Pty.) Ltd.

Engineering
Steel framed superstructures
Bridges
Steel construction systems
Field Erection

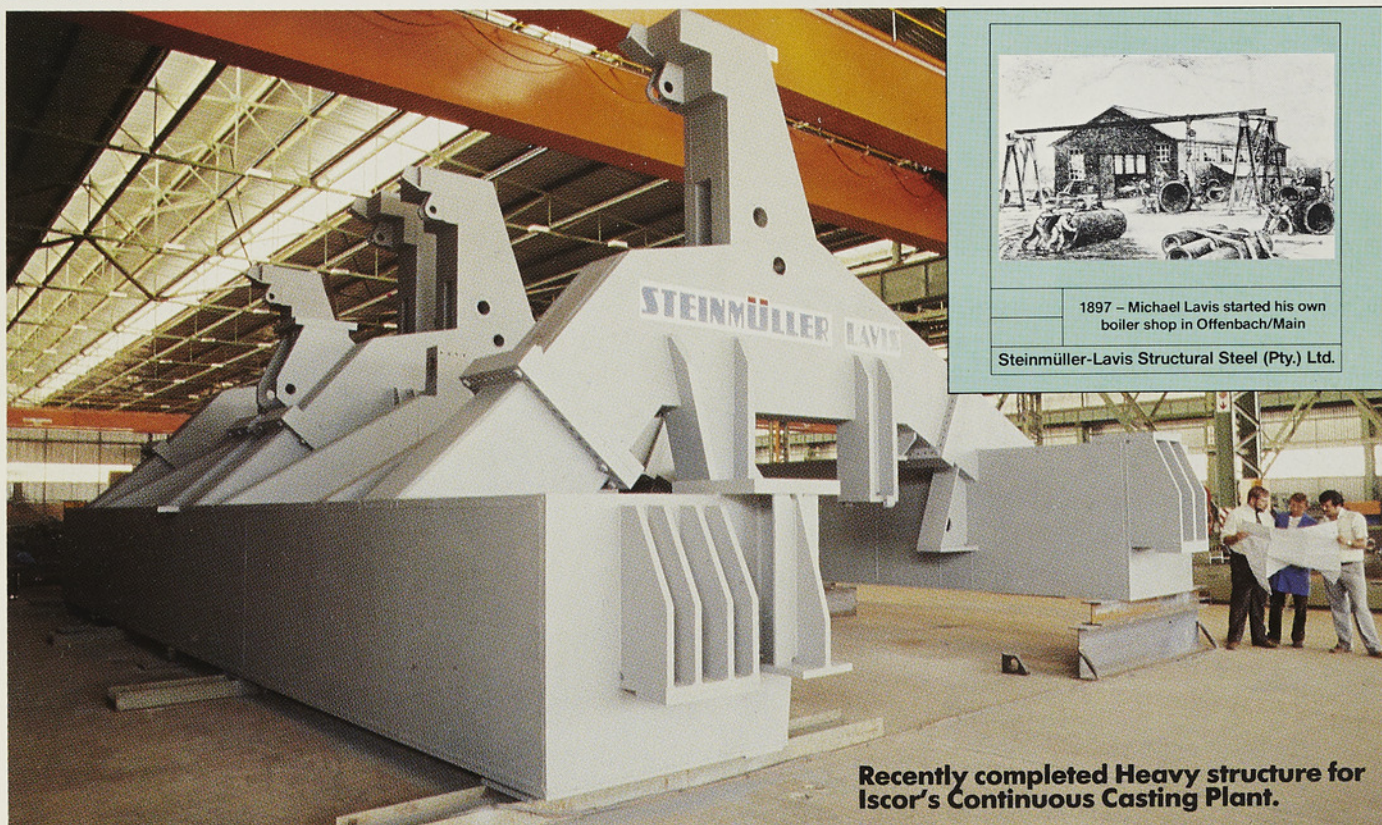
Supplies and Services

Steinmüller-Lavis Structural Steel (Pty.) Ltd.

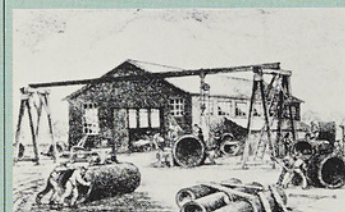
Workshop data

Total plant area	approx. 30 000 m ²
Roofed workshop area (3 bays)	approx. 11 500 m ²
Unroofed storage area, served by EOT crane	approx. 7 000 m ²
Transport connection	road and rail
Construction period	1984-1985
Start-up of fabrication	01.07.1985

Steinmüller-Lavis Structural Steel (Pty.) Ltd.



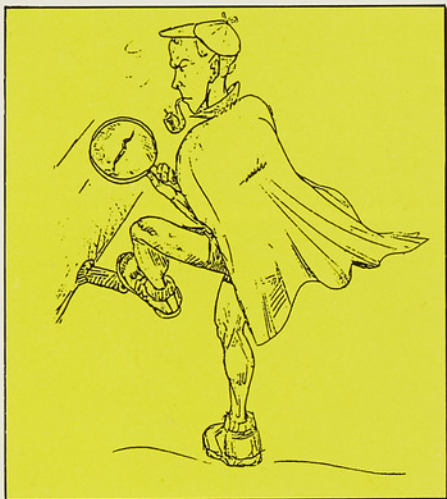
Recently completed Heavy structure for Iscor's Continuous Casting Plant.



1897 - Michael Lavis started his own boiler shop in Offenbach/Main

Steinmüller-Lavis Structural Steel (Pty.) Ltd.

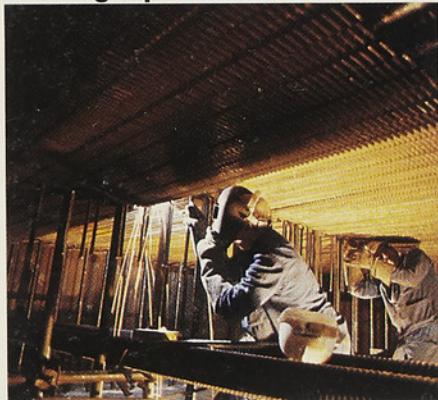
Inspector Clouseau



The importance of thorough inspection as a routine component of boiler maintenance programmes was highlighted during the general overhaul of unit number one at Arnot Power Station.

Efforts to reduce the cost of the general overhaul led to the cancellation of in depth non destructive testing of headers. While conducting visual inspection of the boiler, our QAD inspector Mr P Coetzee reported that he had noticed cracks on the final outlet header tube stubs. A sample number of stubs tested for surface

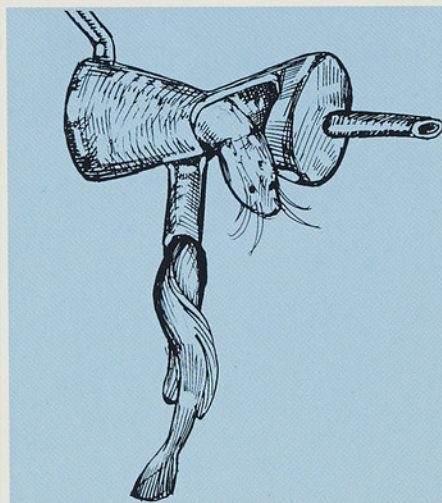
Welding repair on Economiser.



cracks using the MPI technique confirmed the presence of cracks and this led to a full scale investigation of the final outlet header involving 100% surface crack testing and preparation of metallographic replicas.

In depth evaluation of the condition of the header by Steinmüller in conjunction with Escom station staff and the Rosherville Test and Research Centre led to the decision to weld repair the creep damaged final outlet header. Working continuous 24 hour days the maintenance team successfully repaired the header.

Expensive catfish



A catfish cost Escom (Duvha Power Station) R134 978,00 in electricity replacement and fuel oil costs. The catfish blocked the water air ejectors which produce the vacuum on the hot turbine condenser. The turbine tripped from 600 MW when the low vacuum protection interlock acted.

The costs were incurred due to the fact that less efficient and more expensive power had to be generated elsewhere during the shut-down and additional fuel oil to ignite the pulverised coal combustion upon returning the unit to service.

UIF – Maternity benefits

Did you know that the unemployment insurance fund provides maternity benefits to contributors who are temporarily unemployed as a result of pregnancy. Should you receive no earnings or less than one third of your normal pay whilst unemployed, you may apply for maternity benefits.

You will receive 45% of your earnings at which you were last employed as a contributor to the fund, and the length of time that the benefit will be paid to you depends upon the length of time that you have contributed to the fund. For every six weeks that you contribute you are entitled to be paid one weeks benefit. You can be paid for a maximum of 18 weeks before the baby is born and for 8 weeks after birth. That's not all – if you have say, 25 weeks benefit to your credit and you are paid benefits for 10 weeks, the balance of 15 weeks can be carried over.

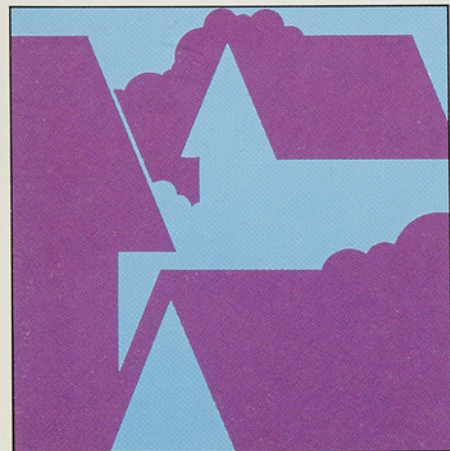
An application for maternity benefits can be lodged at your nearest labour bureau and you must produce your identity book and unemployment card (blue card).



Metal Industries Group Pension Fund — home loans

Did you know that the rules of the fund have been recently amended to enable members to pledge benefits as security for housing loans granted by their employers. The amount of the pledge will be limited to the value of the employees own contributions and will be accepted in respect of loans granted by the employer for housing purposes only.

Employees making use of this new facility are expected to make every effort to settle their debts with employers on termination of service. In the case of termination of service where membership of the fund ceases as well, the housing loan may be set off against the withdrawal benefit payable in terms of the rules of the fund.



Willy Sharp



Willy Sharp recently completed his level III examination in non-destructive testing in the United States of America. We congratulate him on this achievement especially in view of the stringent qualification requirements set by the American society for non-destructive testing (ASNT), an organisation founded in 1941 which is today one of the leading internationally recognised bodies in the field of NDT.

Willy now holds a certificate in all of the "big four" NDT methods and during his visit to the United States he also represented the South African Institute of NDT at the 17th conference of the International Committee on NDT.

As Chairman of the qualification advisory committee of the South African Institute of NDT, Willy's contribution to our quality assurance division will ensure that the highest standards will be maintained.



Peter Lohrmann

Mr Peter Lohrmann, M Sc (Eng) has been appointed manager of the materials handling division of Steinmüller Construction. Mr Lohrmann, who has had several years experience in bulk materials handling, brings a high level of expertise to the company and he will be ensuring that the existing high quality of design and execution is maintained, while broadening the operational base of the division which is at present heavily involved in a wide spectrum of wet and dry bulk powder-granular conveying, handling and storage systems, for further details of which see elsewhere in this issue.



Jürgen P Schneider



Jürgen Schneider born on March 27th 1943 in Germany is the new Managing Director of Alrode Engineering. He joined the Steinmüller Group on January 1st 1986, after having been deputy managing director of Arminco (Pty) Ltd for 2½ years. He is a Dipl. Ing, and his career lead him from Lurgi, Frankfurt, via Veba to the Lentjes Group, Duesseldorf, where he specialised in the construction and erection of power plants. He loves to play tennis and a good game of cards and dislikes cinemas and bad food. After having spent the first 25 years of his life in Heidelberg, Germany he returned to Heidelberg, but this time the South African one.

Orhaneli – Turkey

Wolfgang Finke will soon be leaving us to take charge of

Steinmüller's Turkey project – an order for the design, manufacture and supply of 1 x 210 mw boiler and water treatment plant. Wolfgang will be based in Istanbul and Helmut Kunze from our Chamdor works will also be joining him.

Frans Vollmers has, with effect from 1 June, been appointed acting general manager manufacturing.

In memoriam

The management and staff of Steinmüller wish to convey their sympathy to Syliva Gilschwert and daughter Sara on the sudden and untimely death of Hermann on 27 December 1985.

Welcome

We welcome 34 new salaried employees to the Group since January of this year and wish them every success with their future careers.

Mr R Leffin	01.01.1986
Contracts Engineer – Alrode	
Mr J P Schneider	01.01.1986
Managing Director – Alrode	
Mr S Gijana	01.01.1986
Gardener/Security Guard	
Mr A F Rankin	01.01.1986
Marketing Analyst	
Mr G M Tucker	01.01.1986
Proposals Engineer	
Mr F Krummacher	01.01.1986
Trainee Technician	

Mr D Barkhuizen	01.01.1986
Trainee Technician	
Mr P Azzali	01.01.1986
Trainee Technician	
Mr A T Mokoena	01.01.1986
Pupil Engineer	
Miss U Klein	09.01.1986
Accounts Clerk	
Mr W O Lamb	15.01.1986
Progress Control Superintendent – Lavis	
Mr C F van der West	15.01.1986
Foreman – General Services – Lavis	
Mr C L Davies	15.01.1986
Production Planner/Programmer – Lavis	
Mr G R Adelbert	01.02.1986
Q.C. Chargehand	
Miss S E Promnitz	01.02.1986
Technical Clerk	
Mr E M Nicholson	01.03.1986
Analyst/Programmer	
Mr P Lohrmann	01.03.1986
Divisional Manager – Materials Handling	
Mr A R Khan	03.03.1986
Creditors Clerk	
Miss H M van Driel	03.03.1986
Junior Secretary – Alrode	
Mr J E Granicki	11.02.1986
Design Engineer – Lavis	
Mr A de Matos	17.03.1986
Mechanical Design Engineer	
Mr D L Makapela	19.03.1986
Contracts Administration Clerk	
Mrs S Farred	01.04.1986
Typist/Clerk	
Mr H B Lombard	01.04.1986
Q.C. Inspector	
Mr C Schleigh	01.04.1986
Contracts Administrator	
Mr A R Laita	01.04.1986
Technical Assistant	
Mr K Broichgans	01.04.1986
Contracts Manager	
Mr N E Spencer	14.04.1986
Fixed Assets Controller	
Mr F M Die Wachter	16.04.1986
Q.C. Surveyor	
Mr H L Breittink	16.04.1986
Manager Inspection Services	

married in 1948

joined Steinmüller in 1971

Mabel (née

aged 44

Miss M Wehrt	28.04.1986
Secretary	
Mr A B Welsh	01.05.1986
Chief Financial Planner	
Mr M S Butler	01.06.1986
Creditors Clerk	
Mr D Hartley	12.05.1986
Engineering Manager – Lavis	
Mr D V Mbatha	12.05.1986
Senior Clerk	
Mr I S Campbell	01.06.1986
Foreman – Welding – Lavis	
Mrs M H Springer	01.06.1986
Receptionist/Switchboard Operator	
Mr A Mitterdorfer	01.06.1986
Manager – Production Planning & Control – Lavis	
Mr A F Nagel	01.06.1986
N C Programmer – Lavis	
Mr G N Britchford	01.06.1986
Site Technician/Planner – Kendal	
Mr J H Smyth	01.06.1986
Senior Administration Officer	
Mr C van der Merwe	01.06.1986
Sales Manager (Spares)	

parts of the human body for anatomy lessons.

At the young age of 22 he became a full time artist teaching arts and crafts at various schools and from 1949 to 1952 he participated in 8 art exhibitions winning both gold and silver medals. A lot of his time was spent illustrating African writers stories for publication in the African Drum Publications. Alpheus is also well known for his portrait painting in Orlando and sculptures and carvings.

Alpheus, having married at the tender age of 21 to wife Maude soon found himself with a family of 7 children and due to a shortage of money had to take up regular employment. This meant a sacrifice of his first love, painting, but when viewed against the success of his children it certainly was worthwhile. Alpheus and Maude can be proud of their children who have branched out into libra-



Alpheus and colleagues at the office.

rianship, engineering draughtsmanship, motor mechanics and the youngest daughter Ruth, who is presently completing her matric, hopes to study law.

Alpheus joined Steinmüller in October 1971 where he presently works in the engineering division as a clerical and documentation clerk.

An artist in our midst

Alpheus Kubeka, born in Harri-smith in 1927, is today an accomplished artist and we reproduce here an example of his work.

Alpheus's father was a watch-maker in Durban before transferring to the Witwatersrand where Alpheus commenced his schooling at the American Board School at George Goch. He also attended the St. Cyprian's school and the Technical College in Diagonal Street Johannesburg. Alpheus's artistic talents were recognised at an early age and he recalls having to draw various



Tennis section news



Our winning tennis team.

The tennis section has had a busy half year. Besides the on-going challenge matches for the ladder (at this point in time headed by A Ebrahim) various competitions have been played.

During December of last year the Doubles Floating Trophy was won by Alain David and Bill McGrath and the Round Robin tournament by Michael Wittmann.

Three further competitions have been played against other companies and in all three cases Steinmüller has, not unexpectedly, been victorious! The first challenge match was against a combined team of Mineral Wool and Felix Schuh held at Kyalami and our opposition have blamed the extremely hot weather conditions for their performance. A full evening was required to enable them to replenish their liquid loss suffered during the day!

The second match against a combined SISA/SIEVA team was a lot closer with each side winning 18 sets. It was only on a count out that Steinmüller edged in. The overdue re-match against the IDC was sweet revenge for the

Steinmüller team which was thrashed 2 years previously.

Thanks to Uly Zaczek and Klaus Mickat for their continued enthusiasm and support.

Golf section news

The golf section, one of the most active sections of the Steinmüller Club, held its annual golf tournament at the Killarney Golf Club at the beginning of May. Once again this proved to be a popular and competitive day with a field of 136 players vying for the 10 team and 4 individual prizes.

The competition was a 4 ball better ball alliance and our congratulations go to the winning team of Keith Whitby, Mike Sandham, Johann du Plessis and Pat van Rensburg with 83 points.

Steinmüller boardsailors on holiday at Sedgefield in the Eastern Cape.



Where's the ball?

The 1985 winning team, Messrs Freitag, Van der Merwe, von Sametzki and Seddon, who were placed second this year, have generously donated a floating trophy which will be played for in future competitions.

The golf section has numerous other tournaments and "hackers days" lined up for the rest of this year, details of which will be reported on in the next issue.



A trip to Botswana

The Muhlbauer, Adlhoeh and Rausch families as well as Rainer Klappert and Sara Lewis started a three week adventure to Botswana on 22 March 1986, at 3 o'clock in the morning. The trip included Francistown, Maun, Moremi National Park, Chobe National Park, the Caprivi strip, the west side of the Okavango Swamps, the Tsodilo Hills, Nxai Pan, Nata and finally ended back at Francistown.

The 4 wheel drives provided the odd hitch such as punctures, a broken clutch, a missing drive shaft and major engine troubles. However the highlights, such as finding Bushmen paintings, seeing how the Botswana live, spotting Halley's Comet (or was it two Halley's Comets), soon made up for this.



The campsite at the Moremi Park was called the Third Bridge as it literally was the third bridge. The latter, made of logs, bridges crystal clear water which comes from the swamps and provides a good swimming place for campers. The game seen included elephant, lechwe, warthog, baboon, giraffe, hippo, zebra, impala,

kudu, waterbuck, wildebeest, secretary birds, marabou storks, fish eagles, tsessebe, crocodile and wild dogs.

In addition to the usual game at Savuti Channel, Bushmen paintings could be seen. At midnight one evening, a couple of hyaenas decided to sample the potato soup which was left from the previous dinner in the three legged pot.



Serondela is the home of huge herds of elephants and buffalo. It is quite a breathtaking experience to see a herd of elephant 30 to 300 strong. However, the sight of an elephant bull, trumpeting, flapping his ears and looking as though he is about to charge, would make even the most experienced bushlover a bit nervous. Next was the Caprivi strip. Here an evening was spent at Katimo Mulilo "on" a caravan park, which was a floating bar on the Zambesi river.



At Fisherman's Camp, on the Okavango River, boats were hired and it was intriguing to see the varying colours of birds, reeds and crocodiles. The sunrises and sunsets over the river were most spectacular.



There are approximately 2 000 Bushmen paintings in the Tsodilo Hills and there is a primitive Bushmen village to be found near here. After this the trip proceeded to Nxai Pan and then to Nata and finally ended back in Francistown.

If you prefer an exhilarating holiday, want excitement, love the outdoors, enjoy camping, appreciate African game, like birdwatching and revel in a delicious dinner cooked over an open fire – then you too may want to plan a trip to Botswana.

Dr Andrew's Aeron

The following letter was received from Mr J N Rees.

Dear Ed

Having taken a deep interest in the American Civil War 1861 – 1865 for many years and read volumes written about these tragic years in American history, I should not be unduly worried at being called a buff on the subject.

Many interesting stories of the ingenuity and enterprise of the people of the newly born American States emerge from the in-depth studies of the period and one which caught my avid attention was the story of Dr Solomon Andrew's – Aeron. An exciting but unfortunately unaccepted product of Andrews' inventive head. The story as I recall it goes like this:-

Dr Andrews designed and built a working model of the Aeron which had the ability to fly into the wind without a motor and which was a tormenting mystery to the era's engineers, scientist and bureaucrats.

In 1849 the original airship – because that is what it really was – some 12 feet long was filled with hydrogen gas, slowly produced by a handful of iron retorts in a furnace and was purposely flown out to sea unmanned. *It was not seen again!*

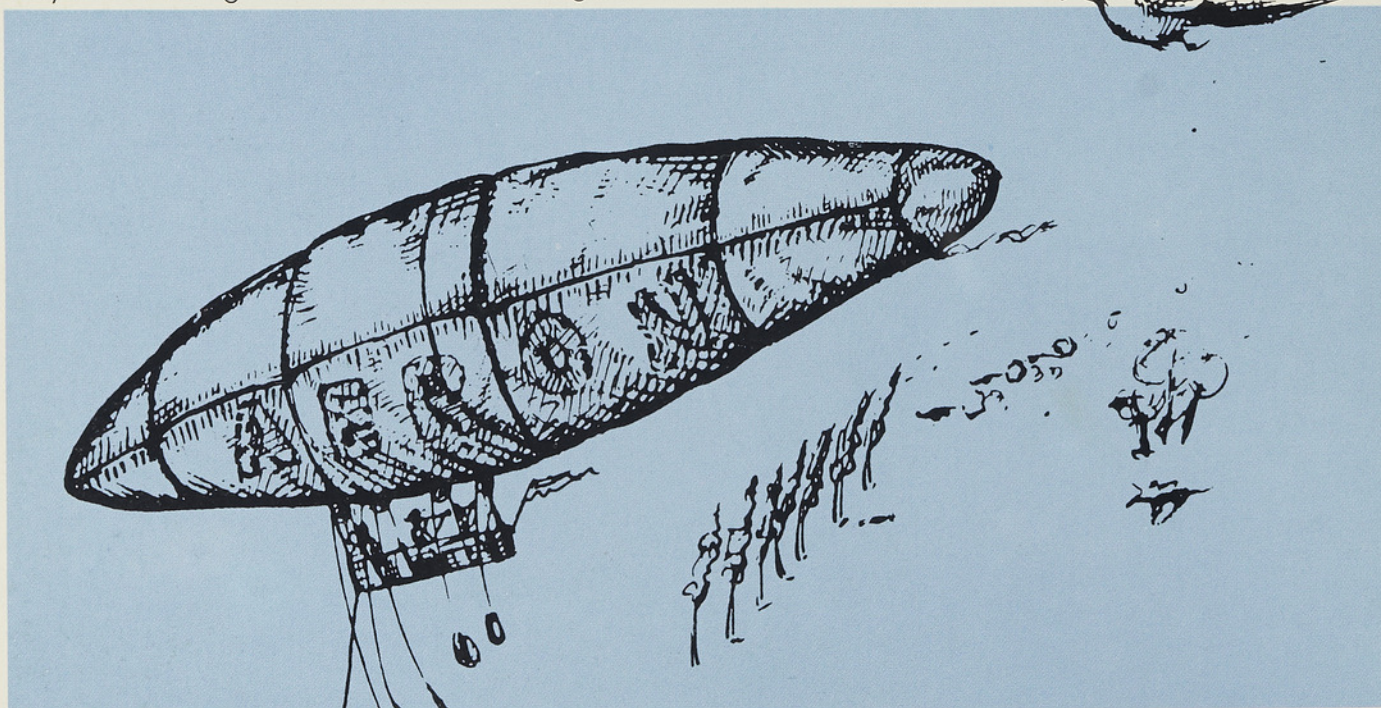
However, in September 1862 whilst the Confederates led by General Stonewall Jackson were making big advances in the south, Dr Andrews commenced building his working airship – the design featured three cigar shaped balloons, made out of 1 200 yards of Irish linen – each 80 feet long and 13 feet wide fastened together with 21 individual internal cells to prevent uncontrolled movement of the gas. The passenger freight basket slung underneath was 12 feet long and 16 inches wide – a

ballast car was attached to tracks underneath the basket and movement of the ballast car fore or aft by pulleys and ropes controlled the rise or fall of the airship.

On June 1, 1863, Dr Andrews flew his airship for the first time – initially with the wind then Andrews turned his graceful ship by rudder and actually flew against the wind at a height of 200 feet. He eventually coasted to a gentle landing using the ballast car ropes to guide his ship down to the ground. He flew the airship afterwards on numerous occasions but Dr Andrews had demonstrated in 1863 that one could use the resistance of the air as a means of motion. He anticipated and demonstrated the principle of dynamic lift.

Yours sincerely

J N REES



The chain of command

The following appeared in a recent edition of the in-house journal of Creda Press, the Creda Reader:

With Halley's Comet due to make its appearance in our mid-November skies, some generous reader at Sondor Industries slipped us this piece entitled, "The Chain of Command". Sounds familiar doesn't it?

To: Factory Manager
From: Divisional General Manager

On Friday at approximately 5 pm Halley's Comet will be visible in this area, an event which occurs only once every 75 years. Please have the employees assemble in the area outside the factory in safety helmets and I will explain this rare phenomenon to them. In case of rain we will not be able to see anything so assemble the employees in the canteen and I will show them a film of it.

To: Assistant Manager
From: Factory Manager

By order of the divisional general manager, on Friday at 5 pm Halley's Comet will appear above the areas outside the factory. If it rains please assemble the employees in safety helmets and proceed to the canteen where this rare phenomenon will take place, something which occurs every 75 years.

To: Personnel Officer
From: Assistant Manager

By order of the divisional general manager in safety helmet at 5 pm on Friday the phenomenal Halley's Comet will appear in the canteen. In case of rain in the area outside the factory the divisional general manager will give another

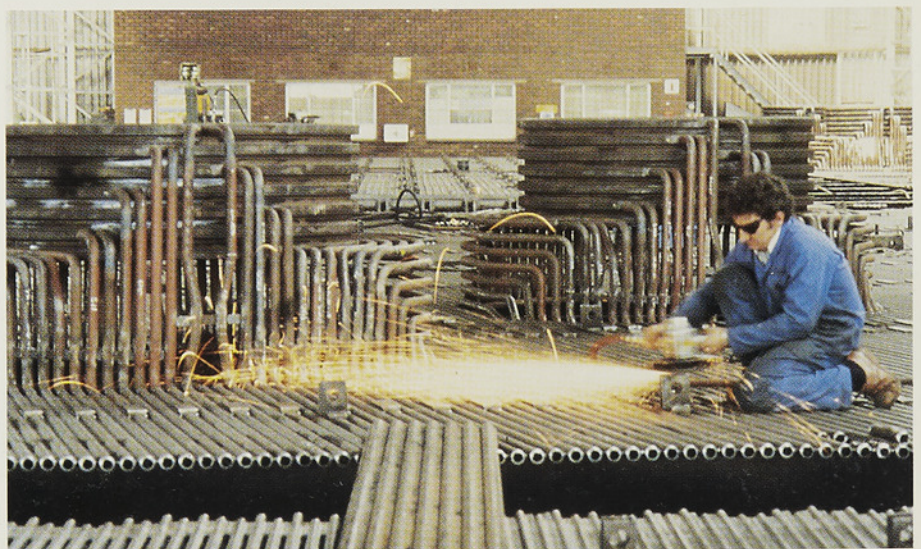
order, something which occurs once every 75 years.

To: Foreman
From: Personnel Officer

On Friday at 5 pm the divisional general manager will appear in the canteen with Halley's Comet, something which happens every 75 years if it rains. The divisional general manager will order the Comet into the area outside the factory.

To: Employees
From: Foreman

When it rains on Friday at 5 pm the phenomenal 75-year-old Bill Halley accompanied by the divisional manager, will drive his Comet through the area outside the factory to the canteen.



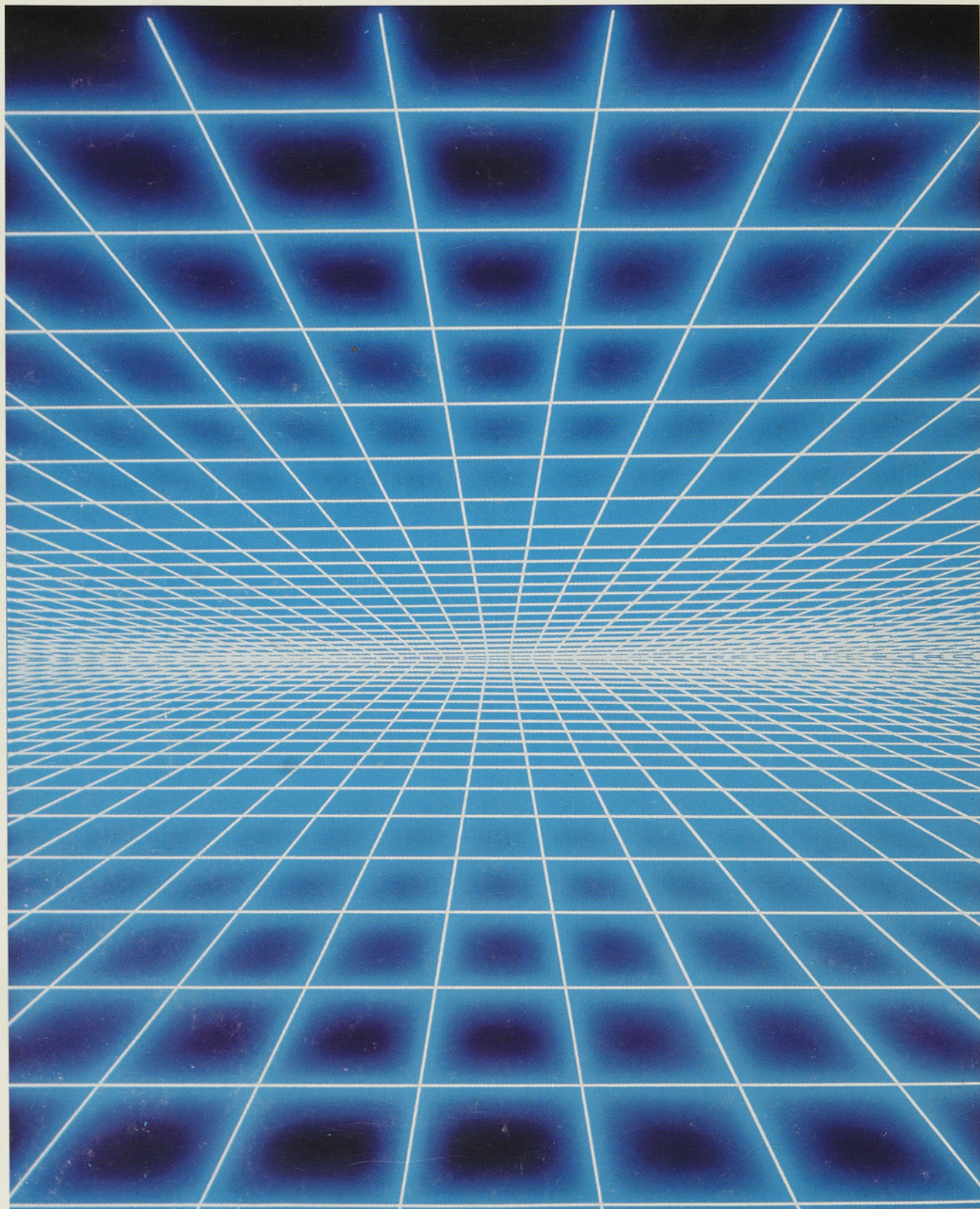
Contributions received from:

H Brown
L Eales
K Flis
S Lewis
P Lohrman
H McHardy
S Pienaar
P Rantla
J N Rees
R Salt
H Scherz
R Schmetz
J Schneider
R Soeder
R Stein
H Straub
U Zaczek

Thanks to C Kenyon, A Sher and M Wehrt
Editor: R A Duff

Insulation Work at Power Station.

Manufacture of a Boiler Wall Panel at Chamdor.



L & C Steinmüller (Africa) (Pty) Limited, P.O. Box 1537, Rivonia 2128. Telephone (011) 803-2046, Telex 4-22069

Designed and produced by Scharer, Edwards, Fraser
in association with R & F Advertising and Marketing.