MIDLAND INSTITUTE OF MINING ENGINEERS

YEAR BOOK

2007/2008

MIDLAND INSTITUTE OF MINING ENGINEERS

(Affiliated to The Institute of Materials, Minerals and Mining)

Published by the Midland Institute of Mining Engineers

CONTENTS

FOREWORD

This 2007/8 year book is published by The Midland Institute of Mining Engineers for distribution to its members. The contents outline the activities of the Institute and its members over this year.

Every effort has been made to ensure the accuracy of the information presented within this year book but if any members are aware of any changes or omissions, please inform the Honorary Secretary in writing.

The membership of the Midland Institute of Mining Engineers comprises several disciplines all emanating from the coming together of the local branches of national institutions. Included in this year book is a message from the Chairman of the Mining Technology Division and Chairman of the International Mining and Minerals Association (IMMa).

The year book has been produced in colour and continues to be funded by The Midland Institute of Mining Engineers Trust Fund and I would like to take this opportunity of thanking the trustees for their continued support of the Institute.

In addition to this publication it is planned to make the Year Book available on our web site, **www.themime.org.uk** but this will not include the list of members.

Charles Rhodes, IEng, FIMMM.
Honorary Secretary

ALTERATIONS IN TITLE

South Yorkshire Viewers' Association, founded 9th June, 1857
South Yorkshire Viewers' Association, amalgamated with the Midland Institute of Mining Engineers, 6th July 1869

Rules revised and Title amended to The Midland Institute of Mining, Civil and Mechanical Engineers, July 1875

Rules revised and Title amended to The Midland Institute of Mining Engineers, 20th November 1923

Rules revised, 17th March 1933 - 6th December 1945 - 3rd February 1949 - 4th January 1951 - 1st May 1952 - 5th November 1953 - 6th March 1958 - 3rd January 1963 - 30th April 1964 - 6th October 1966 - 4th May 1967 - 9th April 1968.

Rules revised and Title amended to The Midland Institute of Mining Engineers (A Branch of the Institution of Mining Engineers) 1st August 1971.

The Midland Institute of Mining Engineers (a Branch of the Institution of Mining Engineers) amalgamated with the Institute of Mining Electrical and Mining Mechanical Engineers (Yorkshire Branch). Rules revised and Title amended to the Institution of Mining Engineers (Yorkshire Branch) 7th April, 1995.

Rules revised and Title amended to The Institution of Mining and Metallurgy (Yorkshire Branch), 31st July 1998.

Title amended to The Midland Institute of Mining Engineers, December 2002.

Rules Revised and adopted at the Annual General Meeting 7th October, 2004.

The Midland Institute of Mining Engineers geographical area increased to include the previous Nottinghamshire Branch of the Institute of Mining and Metallurgy January 2006.

RULES OF THE MIDLAND INSTITUTE OF MINING ENGINEERS

1 NAME

The organisation shall be called The Midland Institute of Mining Engineers for which the abbreviation MIMinE may be used.
This organisation is affiliated to the Institute of Materials, Minerals and Mining (IMMM) and as such supports its aims in consideration for which financial grants may be made available as appropriate.

2 OBJECTS

2.1 To promote the science and practice of engineering in mining and its associated disciplines by fostering understanding, experience, interest and research.

2.2 To promote membership of IMMM with its appropriate professional qualifications through active membership to MIMinE

2.3 To encourage and monitor the development of quality skills in engineers in mining through the provision of support and training for members, particularly the younger members and to achieve and maintain professional qualification status.

2.4 To provide a forum for discussions on problems and techniques of engineering in mining.

2.5 To arrange for the publication of papers and collect and disseminate information related to engineering in mining and its associated disciplines.

2.6 To promote the continuous use of safe working practices within the mining and minerals engineering environment.

2.7 To enhance the members appreciation and understanding of important new methods and technologies.

2.8 To administer the Peake Fund, the Webster Travelling Prize and the Amco Bursary as set out in accordance with the respective governing documents.

3. INTERPRETATIONS

In these Rules, unless the context otherwise requires, the following expressions have the meanings hereby respectively assigned to them:
"the Institute" means The Midland Institute of Mining Engineers
"Council" means the Council of the Institute.
"Rules" means the Rules of the Midland Institute of Mining Engineers
"The IMMM means the Institute of Materials, Minerals and Mining being the merger of the Institution of Mining and Metallurgy and the Institute of Materials, Royal Charter dated 26th June, 2002.
"member" with a small "m" means all persons referred to in Clause 4 (Membership).
"President", "Past President", "Vice President", "Honorary Secretary" and "Honorary Treasurer" refer to officers of the Institute.
"he" in the text shall be taken to mean either he or she as required.

4. MEMBERSHIP

4.1 All members of the IMMM are eligible to become members of the Institute. Members of The Institute of Mining & Metallurgy (Yorkshire Branch) at December 2002 shall be deemed to be members of the Institute.

4.2 Persons who are not members of the IMMM and who wish to take advantage of the services of the Institute and to support its aims shall be enrolled under terms to be agreed by the Institute.

5. SUBSCRIPTIONS

No subscription shall be required from any member of the Institute who is a member of the IMMM beyond that payable to the IMMM as prescribed in its Bye-Laws. Persons who are not members of the IMMM and are enrolled under Clause 4.2 shall be required to subscribe to the organisation of the Institute at rates as agreed by Institute Council.

6. MANAGEMENT OF INSTITUTE AFFAIRS

The direction and management of the affairs of the Institute shall be vested in the Council and be in accordance with the Rules and with the resolutions of the General Meetings or Special General Meetings of the Institute that have been summoned and held in accordance with the Rules as properly recorded in the Minutes.

The Council shall manage the finances of the Institute and from time to time shall establish Rules to manage these and other aspects of the affairs of the Institute.

The Council may from time to time establish subgroups which may allow representation on Council either ex-officio, or by co-option.

7. GENERAL MEETINGS

7.1 Ordinary General Meetings of the Institute shall be held at such intervals and at such times as the Council may decide, except where otherwise required in these Rules.

7.2 An Annual General Meeting shall be held in each calendar year within 6 months of the end of the financial year (see Clause 10.2).

7.3 A Special General Meeting of the Institute can be called whenever the Council may think fit or on requisition to the Council signed by twenty or more members, who are also corporate members of the IMMM.

The business of a Special General Meeting shall be confined to that specified in the Notice convening it and such meetings shall take place within 28 days of the receipt of the requisition and at least 14 days notice of such meetings shall be given.

7.4 The President shall take the Chair at every General Meeting at which he is present. If at any such meeting he is not present at the time appointed for holding the meeting, the Past-President in attendance at the meeting who has most recently held office as President shall take the Chair.

If being thus required no Past-President is available a Vice-President, if present, shall take the Chair. If being thus required no Vice-President is present then the corporate members present may appoint any elected member

of the Council, being a corporate member, who is in attendance to take the Chair such that in the absence of any such elected member the corporate members present may appoint a Chairman from within their number.

7.5 Voting at a General Meeting shall be by show of hands and shall be by members of the Institute. A simple majority of members present and voting is required unless expressly required otherwise (see Clause 15). In the case of an equality of votes the Chairman of the meeting shall have a casting vote in addition to the vote to which he is ordinarily entitled. The declaration by the Chairman on the result of voting on an issue shall be final.

7.6 Each member of the Institute may introduce visitors who are not members of the Institute to any General Meeting and their names shall be recorded in a book kept for that purpose. Such visitors may be permitted to speak at the invitation of the Chairman of the meeting.

8. COMPOSITION OF COUNCIL

8.1 The Council shall consist of Honorary Fellows, Fellows and Members, Associate Members, a Technician Member and non-corporate members of the Institute as defined below:

8.2 Institute Council shall consist of:

- 8.2.1 The President, ex-officio
- 8.2.2 The Honorary Secretary, ex-officio
- 8.2.3 The Honorary Treasurer, ex-officio
- 8.2.4 Vice-Presidents, up to two in number, ex-officio
- 8.2.5 Past-Presidents of the Institute who are still members of the Institute (other than those who are still members of the Institute Council in any other capacity and those who are not willing to serve as Councillors) and who individually have been most recently elected to the office of President, ex-officio, up to four in number.
- 8.2.6 The representative of any Younger Members'/Student Section existing within the Institute, ex-officio.
- 8.2.7 No fewer than six and not more than nine members of which a majority shall be corporate members. These councillors shall be elected by and from the members of the Institute.
- 8.2.8 Such additional members of the Institute, as the Council may decide, not exceeding eight in number, co-opted until the next Annual General Meeting. At least 75% of the co-opted places available must be available to Corporate Members.

9. ELECTION OF COUNCIL

9.1 The Council shall nominate annually to the Annual General Meeting one of their number to be President for the ensuing year. Whenever a casual vacancy occurs the Council shall elect one of their number, being a corporate member, to serve for the remainder of the year.

9.2 The Council shall nominate annually to the Annual General Meeting up to two of their number to be Vice-Presidents of the Institute for the ensuing year.

9.3 (i) No member shall be eligible for the office of President of the Institute who is not a corporate member and who is not a Vice-President or an elected member of Council.
(ii) No member shall be eligible for the office of Vice-President of the Institute who is not a corporate member and who is not an ex-officio or elected member of Council.

9.4 At the date of each Annual General Meeting places on the Council, equivalent to one third of the total of the places available under Clause 8.2.7 shall be vacated for election at the Annual General Meeting. Vacancies shall be created firstly by elevation to the post of an Officer of the Institute and secondly by retirement. The order of retirement of the Councillors shall be settled by ballot in the Council or by such other method as the Council may decide.

9.5 The Council shall issue to the members, within the Institute, at least two months prior to the date of the Annual General Meeting, a notice inviting nominations for election to the Council where vacancies exist.

9.6 The Council shall receive for inclusion in any ballot list the name of any member submitted in writing by two members followed by an acknowledgement of willingness to stand and received by the Honorary Secretary by the due date.

9.7 The administration of elections to Council shall be governed by Regulations prepared by Council.

9.8 The Councillors and officers shall assume office immediately after the Annual General Meeting at which they are elected.

9.9 The place of a member of the Council shall be vacated upon his ceasing to be a member of the Institute, or on his election as a Vice-President or other Officer appointed from amongst the elected Councillors. The Council may fill such a vacancy until the next Annual General Meeting.

10. DUTIES OF THE COUNCIL

10.1 The Council shall ensure that the Institute fulfils its function as set out in Clause 2.

10.2 The Council shall agree the dates of its financial year. Following the end of the financial year the Council shall prepare an Annual Report and Statement of Account for that year. This Report and Statement of Account shall be considered for approval at the next following Annual General Meeting. The Annual General Meeting shall be held within 6 months of the end of the financial year.

10.3 The Honorary Treasurer shall submit to the Council within 3 months of the start of each financial year an estimate in an agreed form of the proposed expenditure for that year.

10.4 The Council may appoint committees consisting of members of the Institute for the purpose of transacting any particular business, or for investigating any specific subject connected with the Objects of the Institute. The President shall have the right to be a member of all committees. Any committee completing the task for which it was established shall be terminated.

10.5 As and when they deem it necessary the Council may invite non-members of the Institute to take part in specialist committee activities.

10.6 The Council may allocate funds for the use of its Younger Members/Students' Section in furthering the objects of the Institute.

10.7 The Council shall require reports from the Younger Members/Students' Section on its activities.

10.8 Where necessary, the Council shall approve in an agreed manner, all papers and contributions submitted to the Institute for presentation or publication.

10.9 On behalf of the Council the Honorary Secretary shall acquaint a prospective author with the requirements of the Institute as to copyright and publication.

10.10 The members of the Council shall choose representatives from the Institute, not necessarily members of the Council, to serve on local outside bodies.

10.11 The Council shall take appropriate action to ensure appropriate consideration is given to applications for membership of the Institute.

10.12 The Council shall ensure proper records of all Institute activities are made published and kept as appropriate.

11. COUNCIL PROCEDURE

11.1 The President shall take the Chair at every meeting of the Council at which he is present. If at any such meeting he is not present at the time appointed for holding the meeting, the Past-President in attendance at the meeting who has most recently held office, as President shall take the Chair. If no Past-President is available a Vice-President shall take the Chair and if no Vice-President is there the elected members present shall elect one of their number, being a corporate member, to take the Chair.

11.2. The Council shall meet as often as the business of the Institute may require and not less than twice in each year, and at every meeting five members, of whom two shall be elected members of the Council, shall constitute a quorum.

11.3. The decision of the Council on all matters dealt with by them in accordance with the Rules as aforesaid shall be final and binding on all members of the Institute.

11.4 Except as herein otherwise mentioned, all issues shall be decided in the Council by a simple majority of those members of the Council present. In the case of an equality of votes the Chairman shall have a second or casting vote.

12. FINANCES

12.1 An Honorary Treasurer shall be appointed annually at the Annual General Meeting on a proposition from the Council.

12.2. The funds of the Institute shall be deposited in a manner approved by the Council. Any bank accounts held by the Institute containing monies of the Institute shall be held in the full name of the Institute as detailed in Clause1 of these Rules.

12.3 Funds provided by the IMMM Council or from any other source approved by the IMMM Council shall be used to pay for the affairs of the Institute and the Institute shall not be deemed for any purpose the agent of the IMMM or have the power to incur any obligation on behalf of the IMMM unless specifically authorised by resolution of the IMMM Council or by these Rules.

12.4. The Honorary Treasurer shall make all payments on behalf of the Institute by cheques signed by any two of the following officers; President, Secretary, Honorary Treasurer, a Vice-President, the immediate Past-President and any two Councillors (being corporate members) authorised so to do, subject to a maximum of four signatories.

12.5 No sum of money exceeding £1500 payable on account of the Institute, or such other sum as the Council may from time to time decide, shall be paid except either by order of the Council or against an estimate previously approved by Council.

12.6 The Council shall appoint scrutineers to whom the Annual Accounts shall be submitted for approval before submission to the Annual General Meeting. They shall be given access at all reasonable times to the accounts and other financial records of the Institute.

12.7 Honorary Treasurer should submit to the Council at each Council meeting a report of its financial transactions.

13. HONORARY SECRETARY

13.1 An Honorary Secretary shall be appointed by and be accountable to the Council in carrying out duties prescribed by the Council and by the Rules applicable.

13.2 Under the direction of the Council the Honorary Secretary shall:

(i) Be responsible for the correspondence of the Institute.

(ii) Send to the IMMM material for inclusion in appropriate publications, particulars of meetings, other arrangements of the Institute and as appropriate Institute personnel information.

(iii) Arrange for the issue of a notice of General Meetings to each member of the Institute and notices of Council and Committee meetings to each appropriate member.

(iv) Prepare the agenda for meetings and arrange for the business transacted thereat to be recorded.

14. PROPERTY

Under no pretence whatsoever shall the property and effects or the income or revenue of the Institute be applied in making any dividend, gift, and division of bonus into or between any members. No proposition in contravention thereof shall be entertained by the Council or by any meeting, General or Special, of the members of the Institute. Provided that nothing in these Rules contained shall prevent the payment of wages and expenses to staff, the making of awards to members under the Rules laid down by the Council for these or other similar works by members, or for meritorious work on behalf of the Institute.

15. ALTERATIONS TO THE RULES AND/OR REGULATIONS

Suggestions for additions to, or alteration or suspension of, any part of these Rules or other Regulations by any member of the Institute shall be made to the Honorary Secretary of the Institute for consideration by the Council. If the Council consider any

such suggestion worthy of submission the Honorary Secretary shall propose it at the next Annual General Meeting.
To succeed, such a suggestion shall require the support of 60% of corporate members present and there being a minimum of 10 corporate members present.

16. SUB-GROUPS

A Sub-Group may be formed within the Institute, in accordance with such Rules as may be prescribed by the Council.

17. YOUNGER MEMBERS'/STUDENT SECTION

17.1 The membership of the Younger Members'/Student Section Committee shall be confined to those under 35 years of age except that any person may remain a member for the session in which they reach the age of 35.

17.2 The duties of the Younger Members'/Student Section is to -

- Arrange meetings of members for the reading of papers relating to the science and practice of engineering (including Economic and Engineering Geology, Mining and its Associated Technologies, Mineral and Petroleum Engineering and Extraction Metallurgy), and all Engineering related thereto and also arrange joint meetings with members of other professional bodies having like interests.
- To arrange visits to works and places of relevant interest.
- To encourage recruitment of younger members and their participation in Institution activities.
- To undertake such other activities incidental to the achievement of the objects of the Institute.
- To co-operate at the request of the Younger Members'/Student Section Committee of the Institute of Materials, Minerals and Mining.
- To nominate a representative to attend Council meetings and report on activities.

PRESIDENTIAL ADDRESS BY Eur Ing J R Leeming

Eur Ing John Robert Leeming BSc(Hons) CEng FIMMM

Bob Leeming gained his honours degree in Mining Engineering from North Staffordshire, and completed training with the National Coal Board to gain a 1st Class Certificate of Competency in mine management. He held supervisory and management positions at West Cannock No.5, Haig and Lea Hall collieries, Bob is also trained in Mines Rescue and has captained one of his colliery's teams.

Joining the Health and Safety Executive as one of Her Majesty's Inspectors of Mines, Bob also now has over 20 years experience of mines regulation, covering mines in all parts of Great Britain.

Bob has written and presented papers to UK Institutions, and also to four Symposia on mine ventilation in the USA and Canada. He has also made presentations on various mining related subjects to UK Trades Unions, mining companies and at education establishments, and contributes to the annual Irish Mines Rescue Competition.

Bob has authored HSE publications on the 'safe use of belt conveyors in mines' and 'prevention of heat illness in mines'. He has been involved in the drafting of guidance on the prevention of fires and explosions underground, and the Coal Mines (Control of Inhalable Dust) Regulations 2007. He sits on a CEN European Standards Committee that is concerned with explosion barriers in coal mines.

Bob is a Fellow of the Institute of Materials, Minerals and Mining, and a Past President of the Nottinghamshire Branch of the Institution of Mining Engineers. He is a registered Chartered Engineer and European Engineer. He serves as a member of the Professional Review Committee.

INTRODUCTION

I would like to thank members of the Council of the Midland Institute of Mining Engineers for placing their trust and faith in me to hold the Office of President for the forthcoming year. It is both an honour and a privilege to hold the position, and I will do my utmost to uphold and maintain the standards and values set by my predecessors.
The title of this Address is "Progress with Safety." It is no coincidence that this was the motto of the old Institute of Mining Electrical and Mining Mechanical Engineers, IMEMME. I will presently address safety in the mining industry, but firstly I would like to say a few words about the Midland Institute and the coming year.

THE MIDLAND INSTITUTE IN 2007-8

This year marks the 150th anniversary of the formation of the South Yorkshire Viewers Association, which was the forerunner, via a number of evolutionary steps, to the present Midland Institute. The Viewers Association was formed in response to concerns over the numbers of fatal and other serious accidents that were occurring in the Yorkshire coal mines at that time. Its stated aim was "the more general diffusion of Practical and Scientific Knowledge for Working and Ventilating Coal Mines". Essentially a need was seen at the time for communicating best practice and sharing knowledge – to enable progress to be made with safety. These aims and objectives are still embodied in today's Midland Institute, and are delivered partly in the program of technical papers; visits and seminars held by the current Institute, and also by the facility for educational visits and associated travel, provided by the Trust Funds.

The aims of the Midland Institute continue to be:

- To promote the science and practice of engineering in mining and its associated disciplines by fostering understanding, experience, interest and research.
- To promote of membership of IMMM with its appropriate professional qualifications through active membership to MIMinE.
- To encourage and monitor the development of quality skills in engineers in mining through the provision of support and training for members, particularly the younger members and to achieve and maintain professional qualification status.
- To provide a forum for discussions of problems and techniques of engineering in mines.
- To arrange for the publication of papers and collect and disseminate information related to engineering in mining and its associated disciplines.
- To promote the continuous use of safe working practices within the mining and minerals engineering environment.
- To enhance the members appreciation and understanding of important new methods and technologies.
- To administer the Peake Fund, the Webster Travelling Prize and the AMCO Bursary as set down in accordance with the respective governing documents.

The Peake and Webster are intended to promote learning and to facilitate travel for that purpose; the AMCO Bursary assists with funding for university scholars during summer industry placements. There are monies available for members from these funds.

The original Viewers Association has developed and evolved over the last 150 years in response to the increasing technical complexity, and also the changing size of the mining industry. There have been a number of amalgamations and mergers, with mechanical and electrical engineering Institutions particularly and latterly by the integration of the Nottinghamshire Branch of IMMM on its closure in 2006. At that time, it was recognised that the local mining industry was no longer large enough to sustain two viable Institutions in the same part of the country, and merger was seen as a logical solution.

These recent changes have resulted in a multi-disciplined membership currently numbering around 1000. With the likely future concentration of particularly coal mining to the East of the Pennines, the Midland Institute is continuing to look to attract more members from elsewhere around the country, particularly from areas where the local mining industry has disappeared and the viability of local branches is now becoming critical.

It is the intention of the Council to gradually strengthen the position of the Midlands Institute to become the national representative body for engineers in mining. Eventually, once we are a national body, we may be able to change our name. The 'Institution of Mining Engineers' has a nice ring to it!

Although this Institute has its roots in coal mining, it is the intention of the Midlands Institute to embrace the mining of all minerals. It has become clear in recent years that most issues affecting the safe production of mined minerals are not confined to the mining of coal.

If the Midland Institute is going to flourish, it needs the support of its members. This is not achieved by the payment of subscriptions to IMMM, as very little of this directly benefits the Midland Institute – indeed in 2006-7 the Midlands Institute only saw about £4300 from the +£100 000 of subscriptions paid by its members.

Attending technical meetings, which are held generally on the second Thursday of the month, can show support. These meetings are timed to be convenient to working members and guests employed both at the mines and attending educational establishments, and in an effort to minimise the need for extensive travelling to venues, presentations are video linked between Kellingley and Mansfield Mines Rescue Centres, as this presidential Address is. This maximises the opportunity for attendance, and also enables better support for the speakers, who put a lot of time and effort into preparing and delivering presentations. They are not encouraged by poor attendances.

Other video-conferencing links can be made available: the University of Leeds and Camborne School of Mines have both already benefited from this arrangement. It is planned to maintain and increase this network in the coming year. Possible venues include Cleveland Potash Ltd. at Boulby. It is also intended to explore the possibility of providing access to the videoed technical sessions via the web, by uprating the Institute's web site. This would also include the provision of technical information, for example codes of practice.

Attendance by members still employed within the industry has declined in recent years to a level that can only be described as disappointingly poor. Attendance at the technical

sessions and the Seminar not only gives the opportunity for widening knowledge and experience, but also allows for the making of new acquaintances and contacts from different sites within the industry, and provides opportunities to exchange views and opinions in an informal atmosphere. These opportunities are few and far between, and I see it as one of the strong benefits of the series of technical presentations that should not be overlooked. It is my view that this networking opportunity is at least as valuable as the content of the technical presentation. All members should actively strive to encourage attendance by others, and by guests, who are not yet members, perhaps mine officials?

The Council tries hard to arrange a varied and interesting program of technical sessions that are relevant to members that can aid in their Continuing Professional Development.
It has to be said that unlike a number of other professional Institutions, up to now the Engineering Council has not placed much emphasis on the demonstration and validation of CPD by its members to maintain their professional qualification. My understanding is that this will change in the near future, with some demonstration of individual's CPD becoming compulsory. Attendance at the technical sessions arranged will go some way to achieve this, and thus help maintain professional accreditation with the Engineering Council.
I would also like to take this opportunity to say to members currently employed in the local mines, to paraphrase J F Kennedy from his inaugural speech back in 1961: to ask themselves not what the Midland Institute can do for them, but what can they do for the Midland Institute? There is always a need for younger upcoming engineers to sit on Council and help to manage the Institute. The Institute was there for them during their formative years, and I ask them to help to make sure it is there for others that will follow.
This year's Technical papers program has now been finalised, and contains presentations from some eminent speakers, notably the CEO of the Coal Authority, Mr Philip Lawrence; the CEO of Powerfuel, Mr Richard Budge; and the font of much explosives expertise, Mr Malcolm Ingry. Subjects to be covered include Explosives, Rescue, Coal Fired Power Generation, Underground Rail Systems, Mining Legacy, Reopening of a mine, and engineering for excellence – given by the Red Arrows Aerobatic display team.

On 16th May 2008 the Institute is holding a seminar in Sheffield entitled "Achieving Safe Performance," and will progress the theme of the 2007 Seminar, that performance and productivity go hand in hand with safety.
The 150th Anniversary will also be marked by producing an updated history of the Midland Institute. This is currently being written, principally by David Hind, and when published will be distributed free of charge to all current members.

BACK TO BASICS

I now want to turn my attention to safety in the mining industry.
The work of mining minerals - whether carried out 150 years ago or today – has always involved the same basic hazards. Although the methods by which mineral is won and transported today are in many cases totally different from those practiced by our predecessors, the nature of the strata from which the mineral is mined is fundamentally the same.

The roof and sides will collapse if not properly supported – remember Bilsthorpe in 1993.

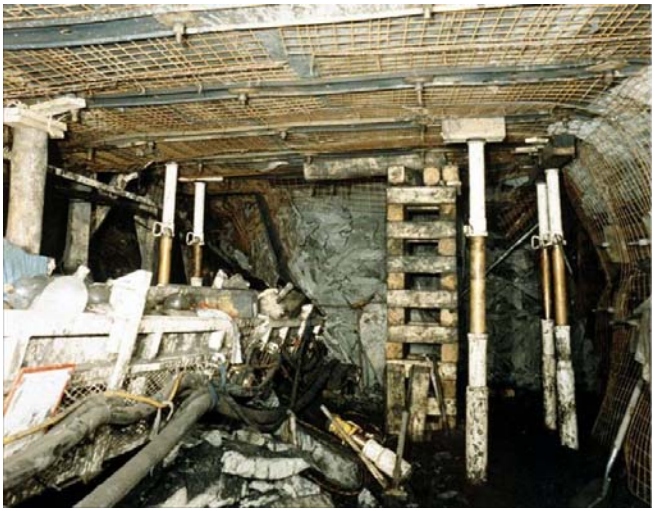


Figure 1 – Bilsthorpe 1993

The same flammable and noxious gasses are given off, particularly from coal measures strata, so adequate ventilation of the mine is critical to safe working – as recognised by the Viewers Association. Golbourne in 1979 is an example.

Figure 2 – Golbourne 1979

Personnel are liable to be struck by moving vehicles, particularly if clearances are tight. These are hazards that have always been with us.
There are grounds for claiming that the hazards today are greater by reason of the existence of earlier workings - workings that were perhaps not accurately recorded. The inrush at Lofthouse mine in 1973 bears testimony to this fact. Older coal mines now tend to have large tips, and the Aberfan disaster of 1966 reminds us of the hazard of an unstable tip.

Figure 3 – Aberfan 1966

In addition, the advent of mechanised mining brought its own hazards, from contact with cutting machinery to the production of respirable dust, and the ignition hazard of picks striking stone. The use of electricity also introduced a shock hazard and a significant ignition source. Large conveyors can be fire hazards, and materials transport is now often by vehicles that are no longer guided by rails along predicable paths, and are powered by diesel engines that pollute the mine environment with fumes, heat and particulate matter.

The fact that the mining industry is inherently hazardous does not mean that work in mines should be risky. It must be the objective of all engineers that the workforce leaves the mine at the end of the shift fit and healthy. I'm sure this is the objective, and yet we still injure men at work.
After a four and a half year period in which there were no fatal accidents at mines, since June 2006 there have been five persons killed below ground in this country. Three in coal mines, one in a mineral mine, and one in a stone mine.

MINES FATAL ACCIDENTS					
	Apr/Jun	Jul/Sep	Oct/Dec	Jan/Mar	Total
1997/8	2	1	1	-	4
1998/9	2	-	-	2	4
1999/0	-	-	-	-	0
2000/1	-	-	-	-	0
2001/2	-	-	1	-	1
2002/3	-	-	-	-	0
2003/4	-	-	-	-	0
2004/5	-	-	-	-	0
2005/6	-	-	-	-	0
2006/7	1	2	-	1	4
2007/8	1	-			1

One man was overcome by an oxygen-deficient atmosphere; one man was struck by a vehicle moving on rails, and three were struck by falling roof or sides. None was killed by the 'new' hazards of cutting machinery, inrush, respirable dust, electricity etc.

We must ask ourselves how these men came to lose their lives, and what we must do to prevent recurrence. It is my firm belief that all these accidents were avoidable. As an industry, historically we have already learned the lessons we needed to for the prevention of these types of accident, and for that matter, for the prevention of coal dust explosions, for example. Our forefathers learned these lessons the hard way, and passed down this knowledge to us. The old Transactions of IMinE and IMEMME are full of it. The lessons are about adequate support, adequate ventilation, and adequate transport systems. We seem to be in danger of re-learning the lessons, again the hard way.

In my view, what we need is a return to basics. Management needs to assess what they are trying to do, and just as importantly, how they are trying to do it; from first principals.
In the comments I am about to make, I have to stress that I am not alluding to the circumstances of any particular incident. These are general views.

For example: Ventilation. What do we want the ventilation in a particular district to do? Is it to provide oxygen, to dilute and remove noxious or flammable gasses, to prevent layering, to provide cooling, to remove heat, or, most probably, a combination of some of these?
Different districts will each have a different combination of requirements, and a different emphasis placed on different aspects. To achieve the desired result or effect, management need to determine what quantity, and/or velocity of air will need to be provided to that district. They will need to determine what will be the effect of providing too little air, or too much, and set appropriate parameters for boundary conditions that can be monitored and used to aid management control decisions.
Management then needs to determine where the air will be routed from. If there is not sufficient air in the network for all demands, then this must be addressed. It must be determined how the ventilation will be controlled: by doors, regulators, stoppings, and fans. All have an effect, and all can have detrimental effects to other parts of the

network. Steps must be taken to minimize contamination of the air by gas, moisture, dust, and heat.
All the above are necessary steps in the planning stage, but if overlooked or not addressed properly, then links in a chain are forged which may lead to an unplanned and uncontrolled outcome.
Once in place, how will the arrangements be managed? What, when and where will parameters be monitored, measured, recorded, and reported on? Again, if overlooked or not addressed properly, further links in the chain are added.

For support, similar first principals steps should be taken. I don't understand some of the explanations given for falls of roof and sides. To me it is pretty basic: you have to resist gravity. If you don't, gravity will win and the strata will fall. If someone is underneath, they will be hurt.
Therefore, in the planning stages, management needs to assess how much of the strata is likely to fall, and where from. This is derived from an assessment of the nature of the strata and the manner of strata failure. These in turn are influenced by the dimensions of the proposed excavation, its depth, and its proximity to other workings, and other factors, for example faulting, all of which affect stress distribution.
Suitable support measures can then be designed to resist that failure, either to stop it or to slow it down sufficiently to give the excavation sufficient longevity for its intended purpose. Ultimately, if failure cannot be prevented, then the support system will have to be designed with the capacity to carry the dead weight of the failed strata.
Management then have to examine how that support system will be installed and set, whatever it is: props, bars, arches, powered supports, bolts, mesh and sprayed concrete, PU injection, whatever. Management needs to consider operational sequences and timings, and the exposures of persons to unsupported strata.
Installation personnel must have been properly trained, and been given appropriate instructions. Supervisory personnel likewise: these must also be fully aware of the standards expected, such that they can enforce those standards.
And again, control criteria need to be established. Monitoring and measurement regimes need to be established, with corrective actions triggered at appropriate points.

On materials transport systems, the planning needs to address the route to be taken, with dimensions and gradients taken into account. The proposed loads to be carried, in terms of physical dimensions and weight, must be compatible with the proposed route, then appropriate vehicles or other transport systems selected.
The methods of loading and unloading items must also recognise physical dimensions, mass, and centers of gravity. Appropriate mechanical aids must be selected and provided.
The stability and security of loads is vital to safe transport and must be assured. In addition, the method of operating the system needs to be carefully planned, with potential conflicting vehicle movements, and the method of introducing vehicles onto the system, addressed.
Still in the planning stages, how is the system to be operated? Where do the men go? How do they maintain safe positioning, and how are pedestrians controlled? Management must to formulate local rules for the safe operation of transport systems, with the involvement of those who are actually to do the work. The rules need to be practical, logical, achievable, understandable, and enforceable. As stated earlier, operators and supervisors need to be properly trained and instructed.

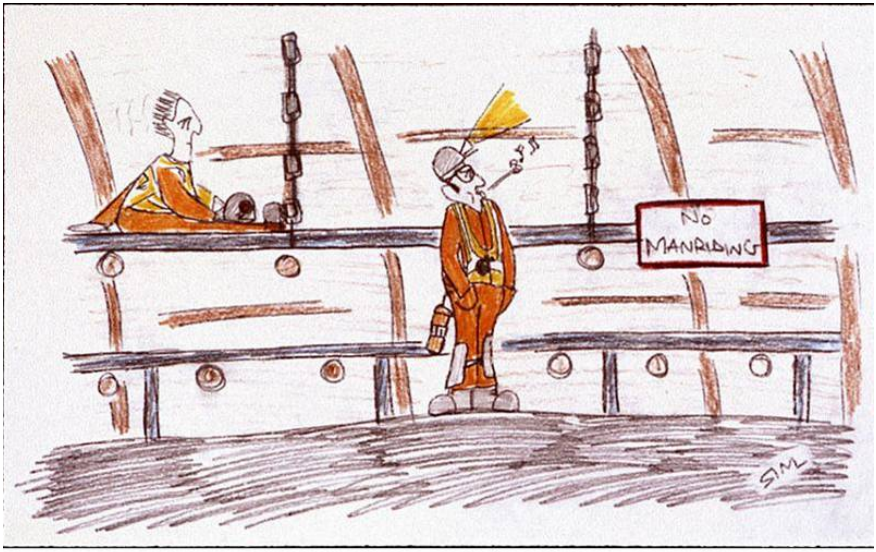
For other work, the same back to basics approach is advocated. This must start with a general plan and basic method statement, but must then involve a formal assessment of the risks.

The first objective of a risk assessment is to recognise all legislation relevant to the task, and ensure that it is complied with. For tasks controlled by prescriptive legislation, compliance with the legal requirements will normally achieve adequate control of most of the serious hazards.
The risk assessment will then need to identify what other hazards are inherent, evident or possible, and introduce further control measures. This needs to be done diligently: if a hazard is not recognised, it won't be addressed and the residual risk level may be high, for example if the ignition potential of a methane layer is not taken onto account. Risk assessments need to be suitable and sufficient; they need to be proportionate: addressing the serious hazards, and not being cluttered up with such relative trivia as the grazing of elbows walking through a doorway.

After giving proper instructions, ensuring personnel are properly trained, and providing adequate supervision, management then need to check that what they believe should be happening, is actually happening on the ground. To do that they have got to go and look, put themselves about and ask questions. That is the way to achieve predictable results, in terms of production, productivity, timings, standards and safety. All go hand in hand and are inseparable. Such checking and reviewing is critical to the management process, yet on numerous occasions it is not done.

Management tend to assume. They assume correct personnel are deployed. They assume those personnel are trained and competent – they may even believe it. They assume they have received instructions. They assume that the local rules are appropriate, practical and enforceable. They assume that adequate and appropriate tools and equipment have been provided and are on site. They assume that the work is being supervised by someone who has himself received instruction and training, and has a good knowledge of the required standards that he is supervising against.
If none of this is checked, how can management be surprised when they have an unplanned outcome?

There is also an onus (and a legal requirement) on the employee to follow the rules. These must be enforced by management, who must not be guilty of turning a blind eye. It's the old 'visible commitment' thing.



None of this is rocket science; it is good, basic management. It can be and tends to be done for the bigger complicated jobs. It tends not to be done for the basic systems at mines, or for the simple or routine tasks.

Why is this? Are members of management not bothered? Have they forgotten how? Did they ever know how? Are they being pressured into turning their attention elsewhere? Have companies stopped checking how their management teams are performing?

I think that the answers to these questions are all yes, but I will qualify that by saying that they apply to different people and different companies at different times. The way forward therefore is to go back to basics, re-establish correct standards and procedures, and go forward from there.

CONCLUSION

This Midland Institute of Mining Engineers, its original founding body, the many forms and names it has had, and the bodies of electrical and mechanical engineers that have merged with it during the past 150 years, have served the mining industry and the professions of engineers in mining well. The Institute was formed to disseminate knowledge concerning the working and ventilation of coal mines, in response to the high accident rates of the time, and has strived for and has achieved continual improvements. These improvements have been made possible by the active engagement of engineers within the profession of mining.

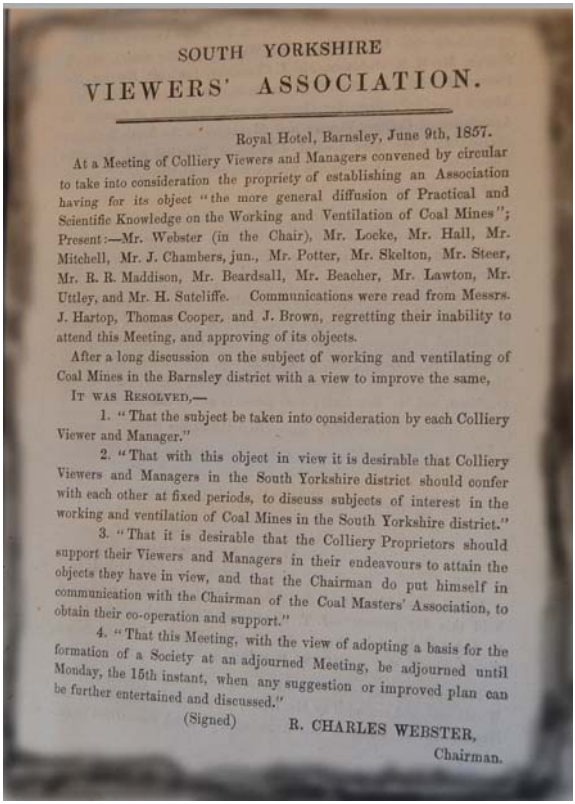
Attendance at technical meetings and close involvement with the workings of the Institute have declined in recent years, most importantly from members still employed in the mining industry. The Institute cannot continue to achieve its aims without that involvement.

This decline in interest has taken place over the last 10 years or so, the last couple of years coinciding with the increase in the numbers of fatal accidents. While I am not suggesting that one is the direct cause of the other, a renewed interest in the Institute, and better engagement with it by its members, must surely foster better communications between those decision makers who exert influence. This in turn will allow the industry and those within it to continue into the future, making Progress with Safety.

Celebratory Reunion Dinner

This year the annual formal dinner for members was a very special occasion as it was a reunion dinner which celebrated the 150th year of the Midland Institute of Mining Engineers. The dinner was held on the 14th March 2008 at the Mount Pleasant Hotel, Doncaster and was attended by 168 members and guests. The menu of the occasion documented the beginning of the Institute and also listed the members of the Institute who attended.

"In the beginning….."



SOUTH YORKSHIRE

VIEWERS' ASSOCIATION.

Royal Hotel, Barnsley, June 9th, 1857.

At a Meeting of Colliery Viewers and Managers convened by circular to take into consideration the propriety of establishing an Association having for its object "the more general diffusion of Practical and Scientific Knowledge on the Working and Ventilation of Coal Mines"; Present:—Mr. Webster (in the Chair), Mr. Locke, Mr. Hall, Mr. Mitchell, Mr. J. Chambers, jun., Mr. Potter, Mr. Skelton, Mr. Steer, Mr. R. R. Maddison, Mr. Beardsall, Mr. Beacher, Mr. Lawton, Mr. Uttley, and Mr. H. Sutcliffe. Communications were read from Messrs. J. Hartop, Thomas Cooper, and J. Brown, regretting their inability to attend this Meeting, and approving of its objects.

After a long discussion on the subject of working and ventilating of Coal Mines in the Barnsley district with a view to improve the same,

IT WAS RESOLVED,—

1. "That the subject be taken into consideration by each Colliery Viewer and Manager."

2. "That with this object in view it is desirable that Colliery Viewers and Managers in the South Yorkshire district should confer with each other at fixed periods, to discuss subjects of interest in the working and ventilation of Coal Mines in the South Yorkshire district."

3. "That it is desirable that the Colliery Proprietors should support their Viewers and Managers in their endeavours to attain the objects they have in view, and that the Chairman do put himself in communication with the Chairman of the Coal Masters' Association, to obtain their co-operation and support."

4. "That this Meeting, with the view of adopting a basis for the formation of a Society at an adjourned Meeting, be adjourned until Monday, the 15th instant, when any suggestion or improved plan can be further entertained and discussed."

(Signed) R. CHARLES WEBSTER,
Chairman.

Photograph of the first entry in the South Yorkshire Viewers' Association Transactions, Volume 1, 1857-58 printed by Richard Pybus, Bookseller and Stationer of Barnsley in 1858.

The Midland Institute of Mining Engineers donated a copy of this publication, along with other historical documents, to the Caphouse Mining Museum.

The top table guests at the event were:

Eur Ing J R Leeming CEng FIMMM
President of Midland Institute of Mining Engineers
Mr B D Lye CEng CSci FIMMM
President of Institute of Materials, Minerals and Mining
Mr R A A Deveria CSci MIMMM
President of Mining Institute of Scotland
Mr S Porterhouse CEng FIMMM
Past President of North of England Institute of Mining and Mechanical Engineers
Dr R White CSci MIMMM
President of Western Branch (Mining and Metallurgy)
Mr D Eastwood CEng FIMMM
President of South Midlands Mining and Materials Institute
Eur Ing P B Scott CEng FIMMM
Past President of Midland Institute of Mining Engineers
Reverend Canon D G Richardson Affiliate IMMM
Chaplain to Institute of Materials, Minerals and Mining
Mrs A Wilbraham
Manager Membership Development IMMM
Mr C Rhodes IEng FIMMM
Honorary Secretary Midland Institute of Mining Engineers
Mrs P M Rhodes FIMMM
Administrator Midland Institute of Mining Engineers

President Bob Leeming with guest Presidents of other Mining Institutes
Back row right to left: David Eastwood; Barry Lye; Richard White
Front row right to left: Richard Deveria; Bob Leeming; Stuart Porthouse

Eighteen Past Presidents of the Midland Institute of Mining Engineers were also in attendance and the event was well supported by a number of companies.

Past Presidents at the 150th Year Celebratory Reunion Dinner
Back row left to right: David Oldham; Gwynne Richardson (Chaplain); Paul Lowery; Alan Kirk; Charles Rhodes; Tom Pearey; Bill Tinsley; Peter Scott; Alan Auld
Front row left to right: John Naylor; Bob Siddall; Charles Turner; Don Binns; Bob Leeming; Bill Forrest; John Tunnicliffe; Peter Allsop; Norman Riley

A display of artefacts and publications demonstrated the Midland Institute of Mining Engineers over its 150 year history and was viewed with interest by members and guests and also hotel staff.

A number of presentations took place during the course of the evening:

Peake Medal

Awarded to a member who has rendered conspicuous service to The Midland Institute of Mining Engineers.

Eur Ing Peter B Scott CEng FIMMM

Webster Medal

Awarded by the Council to the author of the best paper presented to The Midland Institute of Mining Engineers during the previous year and the manuscript of which has been accepted for publication.

Eur Ing Harry Martin CEng FIMMM

For his paper entitled "Automated Plow Longwall A Solution To Thin Seam Coal Mining"

Past Chairman of Younger Members/Students Medal
Presented to Mr John McConnell

The J F Tunnicliffe Paper Competition and C S Littlewood Award
Winner Mr Liam Bermingham
For his paper entitled "A Preliminary Study into the Relationship between Air Overpressure and Face Velocity in Quarry Blasting"

President Bob Leeming presents the Past Chairman of Younger Members/Students Medal to Mr John McConnell

Photographs of other presentations are included in the relevant sections of this publication.

Seminar

A full day seminar "Achieving Safe Performance" sponsored by Health and Safety Executive, UK Coal Mining Ltd, Continental Conveyors, Midland Institute of Mining Engineers and The Institute of Materials, Minerals & Mining was held at the Holiday Inn, Royal Victoria, Sheffield on 16th May 2008. This was a successful event with four papers and three cameos presented, a number of trade stands/exhibitors and attended by over one hundred and fifty delegates.

Mr Wyn Griffith (left) and Mr Bill Denton (right), Vice Presidents of Midland Institute of Mining Engineers who each chaired a session of the seminar.

Mr Simon Hunter Cleveland Potash Ltd - Boulby Mine
Who presented a paper on "Safe Performance"

Mr Bill Tinsley (left) and Mr Tim Spurry (right) - UK Coal Mining Ltd
Who presented a paper "Health and Safety Revitalisation, Memory or An Opportunity to Enable Best Practice to Flourish"

Mr Darren Loftus(left) and Mr David North (right) - British Gypsum
Presented a paper "Improving Safety through Total Productive Maintenance (TPM)"

Mr Jim Shotton (right) and Mr Andrew Watson (left) - Mines Rescue Service Presented a paper "Past Present and Future"

Dinner Dance

The Annual Mining and Minerals Industry Joint Dinner Dance was held on Saturday 17th May 2008 at the Holiday Inn, Royal Victoria, Sheffield. An enjoyable evening of food, music and dancing was attended by 170 members and guests.

Top Table guests from left to right: Mrs & Mr D Mitchell, HM Chief Inspector of Mines; Mr & Mrs D Eastwood, President South Midlands Mining & Materials Institute; Mrs and Mr R Leeming, President Midland Institute of Mining Engineers; Mr & Mrs A Howells, President Minerals Engineering Society; Mr & Mrs J Lloyd, Chief Executive UK Coal Ltd.

During the evening Bob Leeming presented Jon Lloyd with his Fellowship of IMMM certificate.

Annual Golf Tournament

The event planned to take place on Friday 15th June 2007 at Tankersley Park Golf Club was cancelled due to flooding of the course and the event had to be postponed. The rearranged date was Friday 28th September 2007 and the weather was kinder although light was failing by the end of the tournament. This event was won by Peter Scott, seen below with the trophy.

On 13th June 2008 the event took place again at Tankersley Park Golf Club with only a very small number of participants and the trophy was not awarded.

Future tournaments will continue to be planned subject to the willingness of members to take part.

YOUNGER MEMBER'S SECTION REPORT 2007/8

This report by Peter Moden gives an overview of activities that were conducted by the younger members/student section of the MIMinE in the year 2007/2008.

Membership of the younger members/student section rose at the beginning of the term with a new intake of graduates from the mining and mineral processing course at the University of Leeds as well as apprentices from Cleveland Potash at Boulby. This led to a large turnout of apprentices at the presidential address at the beginning of October. Through membership of MIMinE it is hoped that young people within the mining industry gain a better understanding of the industry and make useful connections for future career development.

Turkey Tour Presentation

Following the success of the mining tour to Turkey in June of 2007, which was part funded by the MIMinE, a presentation was held in October to highlight the success of the trip and to outline the benefits of membership on the MIMinE.

Presenting the report were members Liam Bermingham and Peter Moden. While on the mining tour in Turkey the younger members visited Dumlupinar University, SLI opencast coal mine, GLI underground coal mine, Emet Kolemanite boron mine and Bandirma boron plant, Kumas magnesite mine and Alimoğlu marble mine and processing plant. There was also a cultural visit to Istanbul. From the presentation it was shown that new knowledge had been gained from visiting the mines located in Turkey. Particular interest was paid to the 'classical' method of underground mining shown at the GLI underground coal mine, which is still operating a man working face using pick axes with a central conveyor roadway and also the marble quarry and factory that none present had witnessed before.

The presentation was finished with a short word from Charles Rhodes on the Peake and Webster scholarships that are available to younger members and a word from Dr. Dixon-Hardy on the 2008 mining tour to Finland.

Cleveland Potash Trip

In November of 2007 11 members of the student body of MIMinE visited Cleveland Potash mine near Whitby. Visitors to the mine were fortunate to see continuous miners at work with the joy flexible conveyor train that is being used there. Following the underground tour we were then led round the winding house and gear.

Cleveland Potash provided an excellent tour of the facilities and provided all the necessary PPE and clothing. I would like to express my deepest thanks to the staff of Cleveland Potash, with particular thanks to Neil Rowley who helped organise the trip.

Trip to Camborne School of Mines (CSM) Exeter

In December of 2007 younger members from University of Leeds conducted a trip to CSM at Exeter University. This was to be the first of two trips to Camborne in order to increase the relations between the two university mining departments, Leeds and Exeter. While there the younger members were able to visit the underground mine owned by the school as well as having a tour of the campus.

The underground mine was formally used as a testing area for Atlas Copco underground drilling rigs but is now used by the university by graduates for underground surveying and research.
We were led round the facility by a research student looking into explosives use in the underground environment. The campus has recently been taken over by the University of Exeter and has been provided with funding to develop the aging facilities.

Prof. Tunnicliffe Paper and Young Persons Lecture Competitions
The Professor Tunnicliffe/CS Littlewood paper competition is an annual event which encourages younger members at the MIMinE to present papers on subjects within the field of mining. Following the presentation of the papers these presentations are then reviewed and the winner is entered into the regional final of the Young Persons Lecture Competition, the winner of the regional heat is then entered into the national final, the winner of this final is then entered into an international paper competition.
This year Liam Bermingham and Peter Moden entered the competition. Liam presented a paper on the relationship of Air over Pressure (AOP) produced from blasting and face velocity of blasted rock benches and Peter presented a paper on the influence of underground workings on spontaneous combustion.
The judges present at the competition held in the AMCO room at Leeds University were Prof J F Tunnicliffe, Dr R Fowell and Mr C Rhodes. Liam Bermingham won the competition and went on to the regional final. Here he met with formidable competition and came 2nd, the winner of this heat went on to win the national final to represent the UK in the international competition.

150th Year anniversary dinner
The MIMinE was founded in 1857 and on the 14th March 2008 the institute finished its celebration of the 150 years of activity with a celebratory dinner at the Mount Pleasant hotel in Doncaster. This dinner was attended by a number of members of the institute including some younger members, the President of the IOMMM, Barry Lye, and Presidents of other mining societies of IOMMM in the UK.
The MIMinE funded the meal for the younger members who expressed their gratitude for being included in the event.

St Petersburg International Student Conference

The St. Petersburg State Mining Institute holds an annual international conference for young researchers and invites representatives from Europe and Asia. This year the conference was entitled "*The international forum-contest of young researchers "Topical Issues of Subsoil Use*"" and was held on the 23-25th April, 2008. The conference attracted over 400 young scientists from 61 universities who took part in the forum-contest. They represented 19 countries: Austria, Albania, Belarus, Great Britain, Hungary, Germany, Spain, Canada, Lithuania, Mongolia, Poland, Russia, Romania, Ukraine, Finland, France, Czech Republic, Sweden, and Estonia. There were a total of 265 presentations based on 8 working topics, these topics were:

· Geology
· Topical issues in prospecting and development of oil and gas deposits
· Topical issues in mining of ore and non-metallic minerals
· Geodesy, geomechanics and underground construction
· Geotechnology, power engineering and automation
· Metallurgy
· Economics and management
· Ecology and environmental protection

This year Liam Bermingham and Peter Moden had been selected by the MIMinE to travel to the conference, funded by the AMCO bursary, to give their presentations within the field of mining of ore and non-metallic minerals. Liam Bermingham presented his paper on the relationship of Air over Pressure to face velocity in bench blasting and Peter Moden presented his paper on flexible conveyor train technology and its use at Cleveland Potash mine. Both presentations were met with interest from the participants and the Institute professors and Liam and Peter were commended on their presentation skills and subjects.
Liam received a silver award for his presentation.

While in St. Petersburg we were taken on a tour of the city and were treated very well. I would like to express my thanks to the MIMinE for their funding through the AMCO bursary, without which attendance at the conference would have been impossible. Also I would like to thank those who organised the trip; Dr Darron Dixon-Hardy, Charles Rhodes and Irina Gerasimova from the St. Petersburg State Mining Institute. I would

also like to thank the institute for supporting us while in St Petersburg, with thanks given to Nicole Morris.

Trip to Camborne School of Mines (CSM) Exeter

This second trip to the Camborne School of Mines (CSM) had specific objectives on how the relationship between the two universities, Leeds and Exeter, should be developed. This included membership into the MIMinE for mining students at the Camborne campus and the setting up of a presentation event between Leeds, Camborne and Imperial College London. These objectives were discussed with the younger members' representative at Camborne, Henry Chalcroft.

It was agreed that the development of the relationship was good for both parties and that the presentation competition was also a good method of sharing knowledge between the three mining institutes.

Trip to Sharlston Colliery near Wakefield.

As part of the university course a trip was organised to Sharlston Colliery near Wakefield. The operation is an open pit reclamation site aimed at producing 60 hectares of land to be used as a mixture of residential, heath land, agriculture, woodland, and wetland and will provide for a significantly improved public rights of way network.

The site has been derelict since 1993 and is now being reclaimed by UK coal with the aim of producing 400,000 tonnes of coal, 100,000 tonnes of high grade fireclay and some 377,000 tonnes of red shale.

I would like to thank all those in the younger members/student section of the MIMinE and members of the council who helped organise the events over the period I was secretary. I wish good luck to the in coming secretary and those who support the secretary in the term 2008/2009

Peter Moden

ANNUAL REPORT 1st July, 2006 to 30th June, 2007

INTRODUCTION

This is the Annual Report of the Midland Institute of Mining Engineers and will be presented to the Annual General Meeting to be held at the Kellingley Mines Rescue Centre and by video link to Mansfield Mines Rescue Centre on Thursday 11th October 2007. The report covers the period from 1 July 2006 to 30 June 2007.

At the Annual General Meeting held on 5 October 2006 the new President Dr D Dixon-Hardy, was inaugurated and the Council from that date to the end of the period of this report was as listed below, except that Mr C Smith was unable to complete his term of office due to work commitments and Mr P W Griffith was elected to Vice President by the council.

President – Dr D Dixon-Hardy
Vice President – Mr J R Leeming
Vice President – Mr C Smith
Treasurer – Mr N E Riley
Secretary – Mr C Rhodes

Immediate Past Presidents
Eur Eng K Sabin Mr P B Scott Dr R J Fowell Dr F A Auld

Councillors

Elected to serve for 3 years	Elected to serve for 2 years
Mr P W Griffiths	Mr W J Tinsley
Mr T Richardson	Mr P Lowery
Mr N Battison	Miss E A Parkin

Elected to serve for 1 year
Mr P I Allsop
Mr R Stevenson
Mr M Weston

Ex-Officio Member of Council
Mr J McConnell (Chairman) Younger Members

Co-opted Members of Council

Professor J F Tunnicliffe	Mr J Hewitson	Mr M Holyoak
Mr R G Siddall	Mr A Kirk	Mr W Denton
Dr B Jones	Mr M Mabbett	

COUNCIL MEETINGS
The Council met on ten occasions during the year:

20th July 2006	4th September 2006	5th October 2006
9th November 2006	14th December 2006	11th January 2007
15th February 2007	15th March 2007	12th April 2007
3rd May 2007		

MEETINGS

The Annual General Meeting was held on 5 October 2006 when Dr D Dixon-Hardy was elected as President for the year 2006/2007.

General and Technical Meetings held during the year.

In line with proposed strategy last year, Video conferencing equipment was purchased and installed at both Kellingley and Mansfield Mines Rescue Centres. The following list of meetings were therefore primarily between these two centres but some involved other venues.

Date	General and Technical meetings	Attendance	Ref
5 October 2006	Presidential Address given by Dr D Dixon-Hardy.	50	1
9 November 2006	Dr R Chapman, Department of Earth Sciences, University of Leeds presented a paper "Placer Gold Mining in the Yukon"	41	2
23 November 2006	Presentation by Mr J McConnell and other Younger members at Leeds University on the Mining Tour to Botswana.	23	
14 December 2006	Dr W Peasegood Coventry and Warwickshire NHS Trust, presented a paper entitled "Commissioning a New NHS Hospital"	44	1
11 January 2007	DTC London (De Beers), presented a paper entitled "Diamonds are a Girls Best Friend"	44	1
15 February 2007	Mr H Martin, DBT Ltd presented a paper entitled "Automated Plow Longwall A Solution To Thin Seam Coal Mining" also a presentation on Safety from Camborne School of Mines	82	3
1 March 2007	Joint meeting with West Yorkshire branch ICTa, visited Hanson Brickworks at Stairfoot and Howley Park	17	
15 March 2007	Mr W Birch, Mining, Quarry and Mineral Engineering , University of Leeds presented a paper entitles "Electronic Detonators to reduce Vibrations from Blasting"	18	1
12 April 2007	Mr A Fynn, UK Coal Authority, presented a paper entitled "Study of Abandoned Mine Safety and Environment USA and UK"	29	1
3 May 2007	Mr P Moden, Student University of Leeds, presented a paper entitled "The Revolution of Continuous Mining"	31	2
12 May 2007	"Health, Safety and Operational Risk Management" Seminar	153	

Reference
(1) Video conference link Kellingley to Mansfield Mines Rescue Station.
(2) Video conference link Kellingley, Mansfield Mines Rescue Station and University of Leeds.
(3) Video conference link Kellingley, Mansfield Mines Rescue, Universities of Leeds and Exeter

The total numbers of members and visitors attending the General and Technical meetings for 2006/2007 was 515

MEMBERSHIP

The table below shows the members of the Midland Institute of Mining Engineers and the grades of membership they hold in The Institute of Materials Minerals and Mining. (Figures obtained from IOM[3] Membership, Stoke)

Grade	June, 2006	August , 2007	inc/(dec)
Honorary Fellows	17	16	(1)
Companions	1	1	
Fellows	384	348	(36)
Members	330	337	7
Total Corporate Members	**732**	**702**	**(30)**
Associate Members	32	31	(1)
Technician Members	40	41	1
Affiliates	52	48	(4)
Graduate(Prof & Graduate)	11	26	15
Graduate(Post Graduate)	12	23	11
Student	131	122	(9)
Graduate (Employed) Botswana	2	2	
Graduate (Student) Botswana	9	9	
Total Non Corporate Members	**289**	**302**	**13**
TOTAL	**1021**	**1004**	**(17)**

Membership Initiative
The Midland Institute of Mining Engineers has been actively supporting students at Leeds University and UK Coal apprentices, by paying student registration fees to IOM[3.] Funding for this membership initiative has been supported by the Midland Institute of Mining Engineers Trust Fund.

Graduates from Leeds University who have now returned to Botswana have formed a sub-branch of The Midland Institute of Mining Engineers. A committee has been formed and Mr Eddie Mosarwe, who was actively involved in the setting up of the sub-branch, has been appointed as President.

PEAKE TRAVELLING SCHOLARSHIP Registered Charity Number 1107616

No applications for the Peake Travelling Scholarship for the year 2006/7 were received.

Additional Awards

The proposed award to Mr. Kevin Sabin, General Manager, Cen-tech, UK Coal and Mr. Neil Battison, Electrical Engineer, Daw Mill Colliery, UK Coal was not taken due to work commitments of the recipients. The project was to research new technology to improve longwall automation in Australia.

Support has been agreed for Mr David Brenkley, Mines Rescue Service, to attend the 3rd International Mines Rescue Conference, Nashville, Tennessee USA during August 2007. The conference will provide a sustained focus on developing new emergency support technologies and associated operational strategies to better deal with mine emergencies.

Support and part sponsorship of the Institute of Materials, Minerals and Mining Young Persons Lecture Competition final held at the Armourers and Braziers Guild Hall London.

Any member of the Midland Institute of Mining Engineers, subject to the conditions outlined in the current year book, may request an application form.

THE NOEL WEBSTER TRAVELLING PRIZE Registered Charity Number 1107632

No applications for the Webster Travelling Prize for the year 2006/7 were received.

The Noel Webster Travelling Prize for 2006 which was awarded to Mr Shazad Hosein, a PhD Research Student at the University of Leeds, for a visit to gain a further understanding of open pit blasting procedures and practises in Chile and the UK has been completed. A report has been presented "Surface and Underground Mine Tour of Chile" and is available on loan from the Institute for student study or reference.

Additional Awards

Support for Mining Tour to Turkey by Leeds University Students which included UK Coal mining apprentices. The visit was completed between 16th and 24th June 2007 and included an opencast coal mine, marble quarry, underground coal mine, boron mine and an open pit magnesite mine.

Support and part sponsorship of the final of the Institute of Materials, Minerals and Mining Young Persons Lecture Competition held at the Armourers and Braziers Guild Hall London.

Any member of the Midland Institute of Mining Engineers, subject to the conditions outlined in the current year book, may request an application form.

THE MIDLAND INSTITUTE OF MINING ENGINEERS TRUST FUND

Annual contributions from this Trust Fund enable the effective operation of The Midland Institute of Mining Engineers.

Trustees:

Professor J F Tunnicliffe, (Chairman)	Mr A W Tuke, OBE
Dr P D Binns	Mr J T Pearey, JP
Mr G C Thorpe	Mr R Stevenson
Mr W J Tinsley (Secretary/Treasurer)	Mr C Rhodes

The Trustees continued to meet regularly throughout the period and have administered the Fund in accordance with the Trust Deed. Substantial funds were made available during the year to purchase Video conference equipment which has subsequently been installed at Kellingley and Mansfield Mines Rescue centres.
During the year Mr Charles Rhodes was appointed a Trustee in line with the trust Deed.
Specific detailed information required by the Charity Commission has been supplied by the Trust.

THE AMCO BURSARY FUND

The AMCO Bursary is constituted by Declaration of Trust dated 11 November 1999 as amended by Supplemental Deed dated 30 March 2000 and is a registered Charity No. 1080526.
The Charity Trustees are the elected Officers of the Midland Institute of Mining Engineers.

President Dr Darron Dixon-Hardy	Chair
Secretary Mr Charles Rhodes	Secretary/Treasurer
Treasurer Mr Norman Riley	
Past President Mr Kevin Sabin	
Vice President Mr Bob Leeming	

The above trustees were elected to office on the 5th October 2006.

The object of the charity is for the charitable purpose in the advancement of education in the science and practice of mining and or such other subject areas as may be defined by The Midland Institute of Mining Engineers. In particular to provide short-term work related training for students who may have difficulties in obtaining practical instruction and work participation.

A Bursary was provided to Mr Abel Arguelles to support practical experience in UK coal mining in order to enhance his academic qualifications gained in Spain and at University of Leeds.

Rules and Conditions for the Bursary have been published and distributed, particularly to University of Leeds and Doncaster College. Any student member wishing for support from the Bursary should contact the Secretary for an application form.

O H SCHMILL MEDAL

The award originated in 1999 through the generosity of Mr Henry Schmill. It is in the form of a double sided medal suitably inscribed. Conditions of award are outlined in the year book.

No nominations for the receipt of this medal have been received for this year.

NOEL E WEBSTER MEDAL

The Webster medal was presented at the Joint Annual Dinner held on 16 March 2007 at the Chasley Hotel, Wakefield to Mr N Battison for the paper entitled "Running the Mine from a Mouse". This paper was given at a joint General Meeting with West Yorkshire Branch of ICTa held on 9th March 2006 at the Caphouse Mining Museum and will be published in the 2006/7 year book.

J F TUNNICLIFFE PAPER COMPETITION - C S LITTLEWOOD MEMORIAL AWARD

The competition was held at the Department of Mining & Minerals Engineering, University of Leeds on 8th March 2007. The judges were Professor J F Tunnicliffe, Dr R J Fowell and Mr C Rhodes. Two papers were submitted by members of the Younger Members/Student Section of the Midland Institute of Mining Engineers.
First prize was awarded to Mr P Moden for his paper "The Revolution of Continuous Mining" and the runner up was Mr J McConnell for his paper "South African Coal Discards – a tool to increase reserves" All the competitors were guests of the Institute at the joint formal dinner held on 16 March 2007 at the Chasley Hotel Wakefield where they were presented with cheques to the collective value of £250.
The above competition is an annual event and entries should be made to the Younger Members Section as per competition rules and conditions in the current year book.

YOUNG PERSONS LECTURE COMPETITION - REGIONAL FINAL

The North East Regional final of the Young Persons Lecture Competition was held on 21st March 2007 at Corus Steel Works. There were seven candidates including the winner of the J F Tunnicliffe Paper Competition-C S Littlewood Memorial Award, Mr P Moden. The winner of the regional competition was Mr Jonathan Fay for a paper entitled "The Synthesis of Ultrahigh Surface Area Porous Nanoparticles by

Mimiemulsion Polymerisation" who went forward to the National Lecture Competition held in London on 25th April 2007.
The National Lecture Competition is an annual event with prizes;
Local Events: A prize of £50 for each class winner. Certificates awarded to all participants. Regional Events: The regional winners selected for the final will receive a £100 prize donated by the Worshipful Company of Armourers & Braziers'.
The National Final prizes were: 1st - £750 plus Armourers & Braziers' Company Medal
2nd - £400
3rd - £200
This year the Peake and Webster Funds part sponsored the National event in the form of additional awards.

JOINT FORMAL DINNER

On Friday, 16 March 2007 104 members and guests attended the Annual Dinner held in conjunction with the West Yorkshire Branch of The International Clay Technology Association at the Chasley Hotel, Wakefield. The top table at this event included Dr R Dolby OBE, President, Institute of Materials, Minerals and Mining; Dr D Dixon-Hardy, President, Midland Institute of Mining Engineers; and Mr D Mason, Chairman, West Yorkshire Branch of the International Clay Technology. Other guests included members of The International Clay Technology Association; members and Trustees of the Midland Institute of Mining Engineers and Younger Members from the University of Leeds. Mr N Battison winner of the Webster Medal was also a guest on this occasion. The after dinner entertainment was presented by Tony Jo a professional comedian and this was a successful evening.

YOUNGER MEMBERS/STUDENT SECTION

Mr John McConnell is the Chairman of the Younger Members/Student Section of the Midland Institute of Mining Engineers. The students receive financial support including the organisation of meetings and visits and the payment of student registration fees to the Institute of Materials, Minerals and Mining. In addition apprentices from UK Coal are also now being supported in the form of student membership of the Institute of Materials, Minerals and Mining.
Through the year the younger members have been involved with visits to Boulby Potash Mine, Kellingley and Welbeck Coal Mines plus numerous other sites.
Support was also given to University of Leeds Mining tour to Turkey.
A more detailed report of the Younger Members section has been written by Mr John McConnell and is published in the 2006/7 year book.

SEMINAR

150 delegates attended a seminar, "Health, Safety and Operational Risk Management", held on 11th May 2007 at the Holiday Inn Royal Victoria, Sheffield. This event was sponsored by Midland Institute of Mining Engineers; HSE; UK Coal; Continental Conveyors; and IOM^3. The introduction and closing remarks were given by Dr D Dixon-Hardy, President, Midland Institute of Mining Engineers and there were three

sessions throughout the day chaired by Mr P Scott, HMI Health & Safety Executive, Mr T Sanders, Chairman, Continental Conveyors and Mr G Beetles, Chairman, Davis Derby Ltd. Papers were presented by Dr A Weyman, Health & Safety Executive; Mr G Clarke, General Manager, Cleveland Potash Mine; Mr N Moore, Skanska; Mr. R. Turner, Continental Conveyors; and Mr T Richardson and Mr D Hind, Davis Derby Ltd. Eight companies, whose products were relevant to the seminar topic, had exhibition stands including IOM^3 Membership. A booklet which included all the papers that were presented was published and distributed to the delegates.

SOCIAL

The Mining and Minerals Industry Joint Annual Dinner and Dance was held on 12th May 2007 at the Holiday Inn Royal Victoria, Sheffield when 179 members and guests attended. The attending Presidents of each organisation were Dr D Dixon-Hardy, Midland Institute of Mining Engineers, and Mr D Sowter, Minerals Engineering Society. Other guests were Mr G Spindler, Chief Executive of UK Coal; Mr D Pattinson, Chairman of ABMEC; and Mr J R Leeming, Vice President Midland Institute of Mining Engineers.

GOLF TOURNAMENT

This was planned for Friday 15th June 2007 at Tankersley Park. Unfortunately this had to be postponed as the adverse weather conditions caused flooding of the course. The competition has been rearranged for Friday 28th September at Tankersley Park.

Financial Statement 1st July 2006 to 30th June 2007

INCOME	2007	2006
S. Littlewood Fund	250.00	220.00
Trust Fund	14500.00	14500.00
Peake, Webster & Amco Bursary (Admin)	1200.00	1200.00
No. 2 Account	0	2500.00
IOM³ Grant (including part Notts)	5065.00	4181.00
Membership Initiative (Trust Fund)	0	1500.00
Video conference (Main Trust – IOM³ – Notts)		4250.00
Bank Interest	0	1.00
	21015.00	28352.00
Excess Expenditure/Income		
Excess Income/Expenditure		
	21015.00	28352.00

EXPENDITURE	2007	2006
Printing and Stationery	3085.00	2478.00
Secretarial Expenses & Honorarium	2400.00	2400.00
Meeting Expenses	330.00	2083.00
Younger Members	305.00	217.00
Petty Cash	150.00	400.00
Assistant Secretary	6504.00	11770.00
Jewels	250.00	250.00
Dinner Guests	350.00	350.00
Office Equipment	658.00	238.00
J F Tunnicliffe Paper competition	250.00	253.00
Membership Initiative	275.00	1215.00
Video Conference	532.00	6086.00
150 Year Publication	1063.00	0
Miscellaneous	1150.00	68.00
Postage	586.00	226.00
	17888.00	28034.00
	3,127	318.00
	21015.00	28352.00

COUNCIL AND OFFICERS 2007/2008

President — Eur Ing J R Leeming, CEng

Vice-Presidents — Mr W Griffith; Mr W H Denton, CEng

Honorary Treasurer — Mr N E Riley, IEng

Honorary Secretary — Mr C Rhodes, IEng

Immediate Past Presidents

Dr D Dixon-Hardy, CEng
Eur Ing P Scott, CEng
Eur Ing K Sabin, MBA, CEng
Dr R J Fowell, CEng

Elected Councillors 2007-2008

Mr J Savage, IEng	Mr T Richardson, IEng	Mr W Tinsley, CEng
Mr W Birch, CEng	Mr N Battison	Mr P A Lowery, CEng
Mr G Huitson, CEng	Dr F A Auld, CEng	Miss E Parkin

P Moden (Chairman), Younger Members

Co-opted Members of Council

Prof J F Tunnicliffe, FREng, CEng	MIMinE Trust Fund
Mr M Holyoak, CEng	Health and Safety Executive
Mr A Kirk, CEng	Chair Professional Review Panel
Mr R G Siddall, FREng, CEng	Mining Technology Division
Dr B Jones OBE, CEng	Mines Rescue Service
Mr I Brown	Lafarge
Mr R Stevenson, CEng	
Mr P I Allsop, CEng	

Observer to Council
Mr N Scholey

Administration
Mrs P M Rhodes

Finance & Awards Committee

Eur Ing R J Leeming (Chairman)

Mr N E Riley (Treasurer)	Mr C Rhodes (Secretary)	
Dr D Dixon-Hardy	Eur Ing K Sabin	Mr W J Tinsley
Professor J F Tunnicliffe	Eur Ing P Scott	Dr F A Auld

INSTITUTE AWARDS

THE PEAKE MEDAL

It was reported in the transactions of the Institute of Mining Engineers that at a general meeting of the Midland Institute of Mining Engineers held on the 25th January 1917 at University House Leeds, Mr George Herbert Peake of Bawtry Hall, Bawtry had very generously donated £1000 to be devoted to the interests of mining and applied as the council of the Midland Institute of Mining Engineers thought fit. After consultation with Mr Peake as to his wishes, the council decided that a medal be struck and this to be called the "Peake Medal". At the meeting it was decided that the medal was to be presented from time to time to any member of the Institution who, in the opinion of the council, had carried out work or research of value to mining. It was particularly desired that the medal should be presented only for work of real value that is to members who have rendered conspicuous services to the Midland Institute of Mining Engineers
This is recognised as the highest award a member can receive.

This year the medal was awarded to Peter Scott in recognition of his outstanding contribution to the work of the Council of Midland Institute of Mining Engineers.

President Bob Leeming presenting Peter Scott with the Peake Medal at the 150th Year Celebratory Reunion Dinner

Awards of the ‘Peake’ Medal.

1917	*C Blake Walker, MInstCE*
1918	*Sir William Garforth*
1921	*C E Rhodes, MInstCE, FCS*
1934	*John Bass, MInstCE*
1954	*Thos W Adam, MC, AMICE*
1958	*Prof I C F Statham, MEng (Min), FCS, FRICS*
1959	*Major N E Humphrys, CBE, DSO, MC*
1961	*R C Baker, CBE, BEng*
1965	*Major N E Webster, OBE, MC, DEng*
1972	*G M H Glover, BA (Oxon), HonFIMinE*
1977	*C A Corden, BSc, CEng, FIMinE*
1980	*J Brass, CBE, BSc (Hons), FREng,HonFIMinE*
1982	*J Blunt, CEng, FIMinE*
1995	Prof J F Tunnicliffe, BSc (Hons), FREng, CEng, FIMinE
	P I Allsop, BEng, CEng, FIMinE
	Dr W Forrest, OBE, TD, BSc, PhD, FREng, CEng, FIMinE
2001	*O H Schmill, Dip-Ing, CEng, FIMM, FIMgt*
2008	Eur Ing P B Scott, CEng, FIMMM

THE 'THOS W ADAM' MEDAL

The Thomas W Adam medal was inaugurated to commemorate the occasion of the centenary of the Institute in 1957 and named after the long serving Secretary, Thomas Adam, who was Secretary of the Midland Institute for 34 years, from 1919 to 1953.

The 'Thos W Adam' Medal shall be awarded from time to time for long and meritorious service in the furtherance of the objects and enhancement of the prestige of the Midland Institute of Mining Engineers.

Awards of the 'Thos W Adam' Medal

1957	*Major N E Webster, OBE, MC, DEng*
1958	*H A Longden, BSc (Hons), FICE*
1959	*W H Wilcockson, MA*
1962	*G C Payne, BSc*
1963	*F S Atkinson, MEng, FICE*
1964	*F V Tideswell, OBE, PhD*
1968	*G A Corden, BSc, CEng*
1969	*C Machin, JP*
1970	*A Wright, MEng, FIMinE*
1975	*J Blunt, CEng, FIMinE*
1983	Professor J F Tunnicliffe, BSc (Hons), FREng, CEng, FIMinE
1989	G C Thorpe, BEng (Min), CEng, FIMinE
1992	*J Brass, CBE,BSc (Hons), FREng, Hon FIMinE*
1993	*O H Schmill, CEng, FIMinE*
1995	P Hinchliffe, BSc, CEng, FIMinE

O H SCHMILL MEDAL

The award originated in 1999 through the generosity of Mr Henry Schmill. It is in the form of a double sided medal suitably inscribed.
Henry was born in Germany but his association with the UK mining and construction industries lasted for nearly 50 years. In 1970, he founded Amalgamated Construction Ltd, which later became AMCO Corporation plc.
Throughout his years in the UK, Henry played a significant part in supporting what is now the Midland Institute of Mining Engineers. He was awarded the Thomas
Adam Medal in 1993 and the Peake Medal in 2001, both of which relate to the conspicuous service rendered to the Institute.

The O H Schmill Medal shall be awarded from time to time at the discretion of the Council of the Midland Institute of Mining Engineers, as recommended by its Finance and Awards Committee (or any successor Committee). The Medal shall be awarded to any person whether or not a member of the Institution who in the opinion of Council has made a significant and worthy contribution to the affairs of the Midland Institute of Mining Engineers.

Awards of the O H Schmill Medal

2000	B Dickinson, TEng, FIMMM
2004	C Rhodes, IEng, FIMMM

THE NOEL E WEBSTER MEDAL

The Noel E Webster medal was introduced in 1979 to be awarded to the Author(s) for what in the opinion of Council was the best paper presented to the Midland Institute of Mining Engineers or Branch meeting during the previous year and the manuscript of which has been accepted for publication. The Award may be withheld in any year at the discretion of Council.

RULES AND DEFINITIONS

1 The Award shall be made by the Council of the Midland Institute of Mining Engineers.

2 A Council Committee shall be empowered to give advice to Council.

3 Adjudication of the Award shall be made at such time in each year as Council deems to be appropriate.

4 "Paper" is defined as a paper that meets the criteria for the time being in force for a paper suitable for publication.

5 A Presidential Address is not eligible for this Award.

6 The Award is not conditional upon the Author(s) being a member(s) of the Midland Institute of Mining Engineers.

7 "Year" is defined as the period between successive Annual General Meetings of the Midland Institute of Mining Engineers.

8 Where in the opinion of the adjudicators, papers are deemed to be of equal, or near equal merit, the adjudicators shall take into account the relative qualities of the respective presentations

9 Where in the opinion of the adjudicators, there are no papers presented which are worthy of such recognition in any year, the Award shall be withheld.

Awards of the 'Noel E Webster' Medal.

1979	P I Allsop, BEng (Hons), CEng, FIMinE
1980	*E Mitchell, CEng, FIMinE*
1981	*G M Jackson, BSc, CEng, FIMinE*
1982	R G Watt, BSc, FMS, FIMinE
1983	A W Tuke, OBE, CEng, FIMinE, MBIM and C L Templeman, OBE, FCA, FIPS, MBIM
1984	*E R Wastell, BSc, CEng, FIMinE* and G Walker, BSc, CEng, FIMinE
1985	B F Rason, TEng, AMIMinE
1986	P Simpson, CEng, FIMinE
1986	AW Standen, TEng, AMIMinE
1988	*T F Mottram, TD, AMIMinE, FBIM*
1989	B Fee, IEng, AMIMinE
1990	G Sykes, CEng, FIMinE
1991	Dr Winton J Gale
1992	M K Tucker and M C Clark
1993	M R Longman, CEng, FIMinE
1994	Dr T John Parker

1995	H Hoy and P Lowery
1996	P T Burgin and M J Thomson
1997	P W Goodier, BSc, CEng, FIMinE
1998	R Stevenson, CEng, FIMM
1999	P S Lewis, BSc, CEng, FIMM
2000	Professor R Williams, FREng, CEng, FIChemE, FIMM, DIC
2001	Dr F A Auld, BSc, PhD, CEng, FICE, FIMM and A Williams, BEng (Hons), ACSM
2002	Eur Ing K Sabin, MBA, CEng, FIMMM and N Battison, MIMMM
2003	D Vint, CEng, MIMMM
2004	W J Tinsley, BSc, CEng, FIMMM
2005	M Thompson, CEng, FIMMM
2006	N Battison, MIMMM
2007	Eur Ing H Martin, CEng, FIMMM

President Eur Ing J R Leeming, CEng, FIMMM presenting Eur Ing H Martin, CEng, FIMMM with the Webster Medal at the 150th Year Celebratory Reunion Dinner held at Mount Pleasant Hotel on 14th March 2008

PAPER PRESENTED by EUR ING HARRY MARTIN CEng FIMMM on February 15th 2007

Automated Plow Longwall A Solution To Thin Seam Coal Mining

Introduction

The method of Longwall Plowing (Plough Faces) was employed in the United Kingdom in 1960s and 70s in Areas such as North East, Yorkshire, West Midlands and Wales. The Plow faces familiar to one's the author worked on, at that time for the NCB and later the Dowty Mining Company used Westfalia Plows and AFCs with mainly Dowty six leg thin seam chock hydraulic roof supports. They were not automated and overload protection for the Plow transmissions against the Plow jamming was by way of shear pins. These Systems eventually became obsolete in the United Kingdom and the Plow lost favour to other coal winning machines such as thin seam Powerloaders and Trepanners.

A Plow Face in the United Kingdom - Manvers Main Colliery 1962

In the German mines, the Plow was used extensively during the same period as in the United Kingdom but continued to be used after the method had been abandoned in the United Kingdom.

Mother being the necessity of invention resulted in higher demand for Plow production and productivity resulted in improved designs and operational technique. The German Plow faces outperformed alternative thin mining machines in German mines, however all Plow systems required manual operation of the face conveyor push and roof support advance thus resulting in men having to perform manual labour in very confined spaces as indeed with other thin seam longwall mining methods.

The Plow did however have some benefits being particularly advantageous in confined spaces, mainly the Plow did not require an operator to traverse the face to control it and as all the main transmissions were in the gate roads, maintenance and repairs in the case of in service failure were more easily performed. Also there were no trailing cables or water hoses to be dragged through the face by the Plow, another operational problem common with the on the on-pan powerloader type of machine.

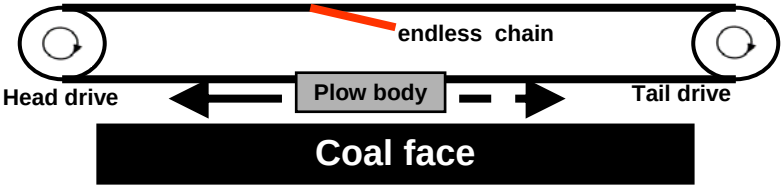
The attempt of this paper is to describe how the inherent deficiencies of the Plow longwall mining system have been designed out and how the application of developing mechanical, electrical, hydraulic and electronic technologies have been applied to create today's modern Plow's, a system rapidly finding favour in many parts of the world where very good quality thin coal seams prevail.

The Original Plow Concept

The Plow was invented in Germany by the Westfalia Company during the Second World War along with the first AFC pan the "Panzer", in 1941 and comprised a Plow body attached to an endless rope which was driven by a winch at one end of the face with a return rope pulley at the other. The previous picture shows a full conveyor the installed power was relatively low and such a Plow would need special mining conditions such as a relatively hard floor, competent roof and soft coal readily breaking from the roof.

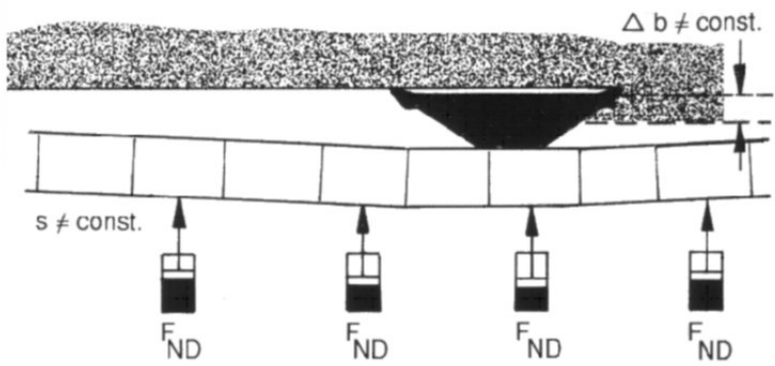
Improved and Current Plowing Principle

The Plow body is attached to a bottom chain which hauls the Plow from one end of the longwall to the other taking a slice of coal in both directions.

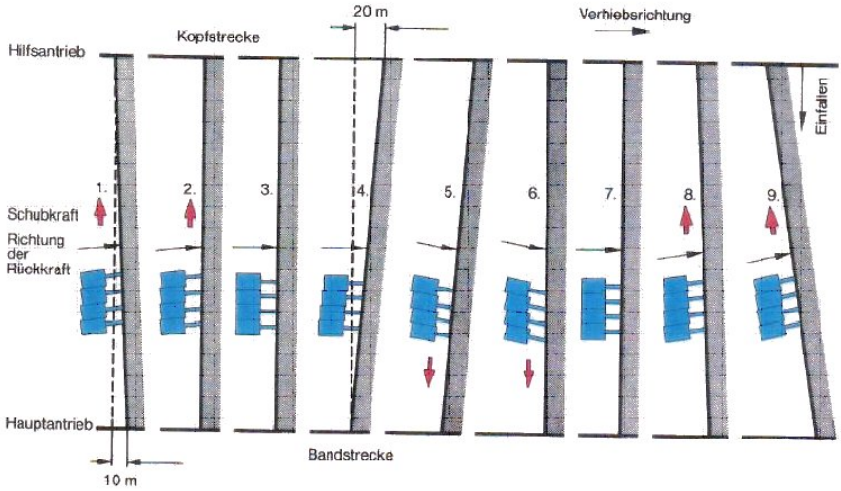


Deficiencies of the Early Plow Designs (60s and 70s era)

A major problem was that the method of keeping the Plow to the coal for cutting was by applying a constant "low pressure" pushing force to the hydraulic roof support advancing ram. As a consequence local coal hard spots or rock intrusions resulted in the AFC being pushed back due to inadequate pushing force making it very difficult to keep face straight. A major factor for high production longwalls is to keep the face in a straight line thus facilitating good roof control, minimizing frictional loss areas to the mining machine and face conveyor and avoiding "face creep" (the tendency of the face to move towards one gate roadway or the other). Such conditions often resulted in the Plow jamming causing the transmission shear pin to fail with consequent down time.



"Face Creep" was controlled by swinging the face line by advancing one entry relative to the other hence requiring considerable operator skill where it was not easy to maintain a in a straight line face.



Manual "On Face" Activities

The hydraulic powered roof supports were advanced manually as was initiation of AFC push. The Plow would follow lines of least resistance and dive into soft floor or climb into weak roof thus creating considerable on face manual labour in confined spaces resulting in low production even with highly skilled labour. In short to enable a Plow to work to a satisfactory level of production the mining conditions had to be "ideal". Ideal conditions for applying the Plow method meant relatively soft coal, good top with coal falling freely, relatively hard floor and a coal seam relatively free of undulations, geological faults and rock intrusions.

Major Improvements through Advancing Technology

Elimination of Shear Pins

The shear pin problem was overcome by the appearance of "overload protection gearboxes". These have been developed as technology has become available and todays are very reliable and effective. A planetary gearbox is used in conjunction with a multi disc type clutch which is held in position by hydraulic pressure and acts also as a brake on the planet gears thus allowing the main driving shaft to rotate. Two speed motors are used for starting and slowing of the Plow and in more recent time the use of VSD electric motors has been employed.

The clutch pressure is set for a maximum slip torque equating to an equivalent Plow chain force and upon exceeding this force the clutch will immediately slip and the clutch disengages thus releasing the Plow drive sprockets from the motor inertia and therefore protecting the motors, the sprockets and Plow chain from the inertial forces capable of causing damage. Clutch slippage triggers a rapid reduction in clutch pressure and immediately switches the motors off to protect the clutch.

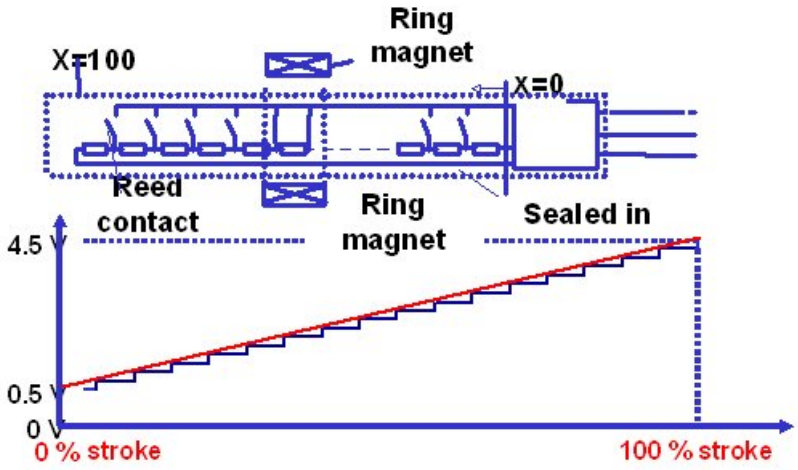
Bucyrus Series 30 Overload Protection Gearbox

Elimination of Constant Low Pressure Push Problems

The powered roof support advancing ram piston rod houses in its centre, a rod containing reed contact switches located at 1.3mm spacing's. A permanent magnet is fitted to the advancing ram outer cylinder and as the reed contacts pass through the magnet they are activated thus indicating the position of the advancing cylinder to a

degree of accuracy of 1.3mm. The desired increment of conveyor advance which equates to the Plow cutting depth is entered into the electronic control program. The reed rod position information is passed to the roof support's electronic control unit which uses the information to push the face conveyor the programmed increment. This programmable parameter is easily and quickly changed to take into account changes in cutting depth should they be necessary due to reasons such as changes in coal hardness, cutting through rock intrusions or a faulted area.

The pressure used to push the advancing ram is the roof support's system pressure, (nominal 325bar) hence the AFC will not be forced away from the face by the Plow even if cutting through rock. The old constant low pressure push was by comparison in the region of 125 bar.



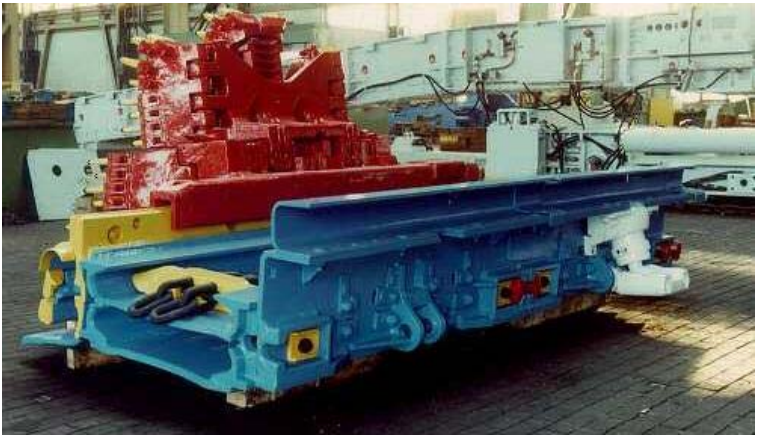
Schematic diagram of a Reed Rod fitted to a Powered Roof Support "Advance" ram

Elimination of Horizon Control Problems

The Plow is relatively small and light compared to alternative longwall mining machines such as the Power Loader. It is steered by the grading the armoured face conveyor. In the earlier years the Plow would generally be set to dig slightly into the floor and as the face conveyor was manually advanced, a wooden wedge would be place under then face side of the advancing face conveyor to counter the digging. Skilled operators would adjust the cutter bits to try to steer the Plow horizon however as soon as conditions changed the settings needed to be re-adjusted. All of this was time consuming and counter productive.

The problem was solved by the introduction of "outrigger steering". This was simply achieved by the addition of a lifting jack to the gob side of the face conveyor. If

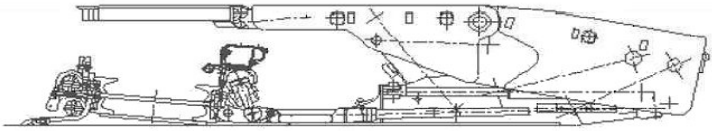
the Plow is required to dig into the floor the gob side of the face conveyor is raised and if the Plow is required to climb, the face side of the conveyor is lifted.



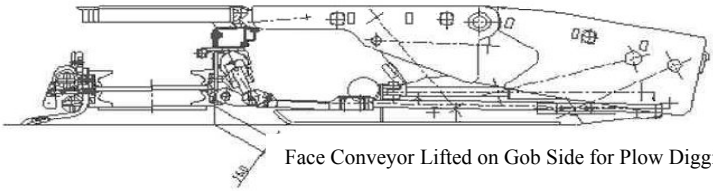
A Bucyrus Section of Armoured Face Conveyor Showing the Outrigger Steering Jack

This addition not only eliminated the tendency of the Plow to dig into soft floors or climb into soft roofs but gave it tremendous flexibility in coping with coal seam undulations and seam displacements caused by geological faults. The Plow being relatively small and taking small bites can change horizon much quicker than the larger coal power loading machines.

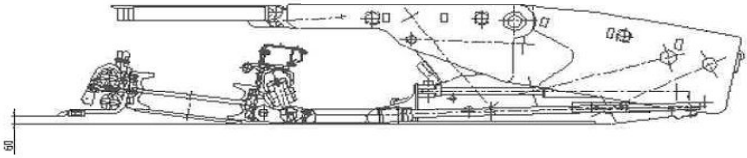
Generally adjustment to the Plow horizon is required infrequently and as the face manager will during his face inspection observe the Plow horizon and advise the operator (who is located in a “miner’s cabin” out of the face or as in Germany on the mine surface), which areas require adjustment and by how much.



Normal Operation



Face Conveyor Lifted on Gob Side for Plow Digging



Face Conveyor Depressed on Gob Side for Plow Lifting

Illustration of Horizon Control Steering to Aid Plow Operation

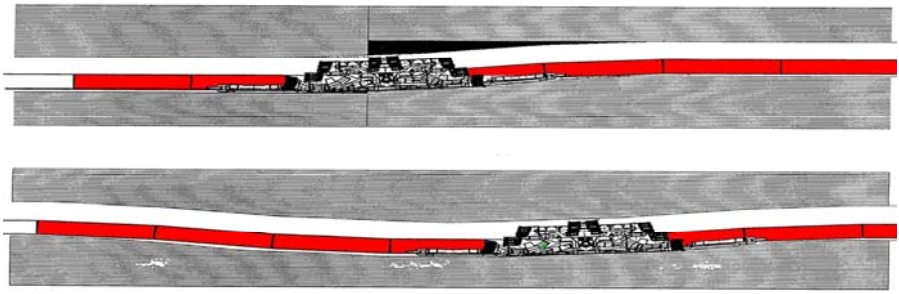


Illustration of a Plow Easily Coping with Undulations and Geological Faults

An automated Plow horizon control system is available; however its operation thus far has been restricted to German mines. This is achieved by mounting a (coal / rock) sensor in the bottom of the Plow body. Information from the sensor is passed by means of a transmitter to a receiver mounted on the gob side of the face conveyor. This information is then passed into the overall control system, processed and the respective outrigger steering rams instructed on how much to adjust. The rate of adjustment is restricted within the physical limits of the system by the addition of an inclinometer.

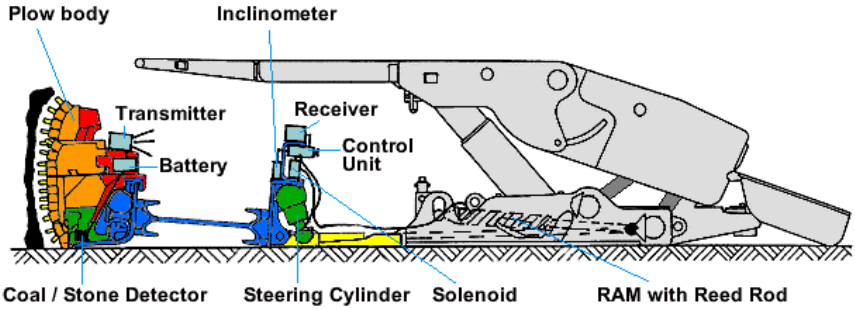
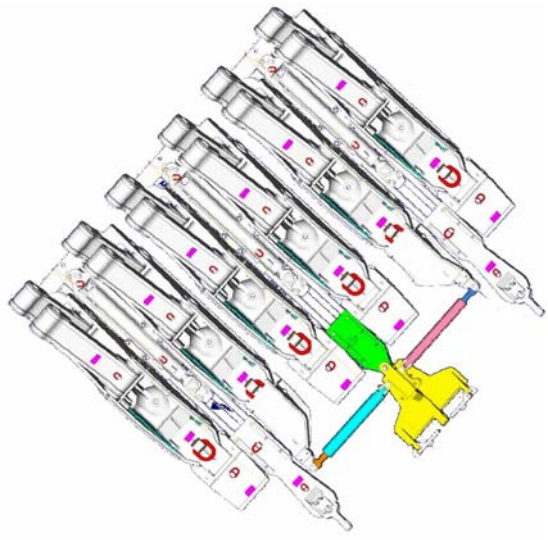


Illustration of the Placement of Monitoring and Control Components on a Plow to Facilitate Auto-Steering

Elimination Of "Face Creep"

The ability to keep the face straight with the addition of incremental high pressure face conveyor push has made compensating for face creep much easier to manage, however when working on gradients the tendency is for gravity to draw the face equipment down the slope. Also even on level faces if more cutting force is required in one direction there will be a tendency for the Plow to pull the face conveyor more in one direction than the other.

This problem has been resolved by the addition of "block anchorage". This works by anchoring the face conveyor to a number of roof supports so that as the face conveyor is advanced, it is not allowed to move in either direction across the face. The anchorage can also be used to pull the face conveyor in ether direction across the face as required.



"3D" representation of the Bucyrus "Block Anchorage" for Elimination of "Face Creep"

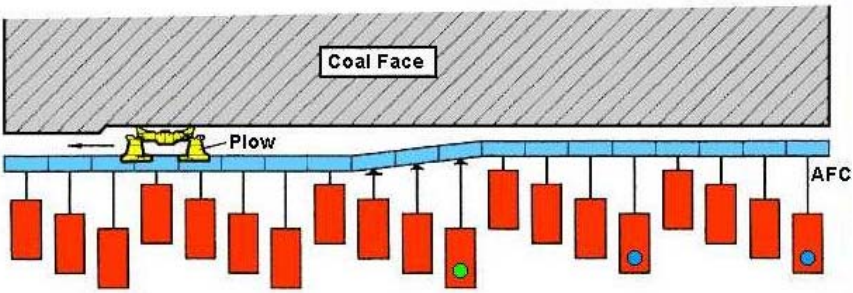
"Block Anchorage" fitted to Bucyrus Plow Shields

Automation

One of the biggest impediments to mining in thin seams is the confines of the working area thus restricting the ability of any miner to perform to a high level of productivity. This is especially the case on low seam longwalls and automation of the operation thus eliminates the need for personnel to be continually on the face, is a major advantage of the Plow mining system.

In addition to the features described above which have eliminated the need for operators to be continually on the working face, the operation of the face conveyor push and lower advance and set of the roof supports, is achieved by means of electro hydraulic controls which are managed by electronic programs to achieve all operational aspects required from the mining system.

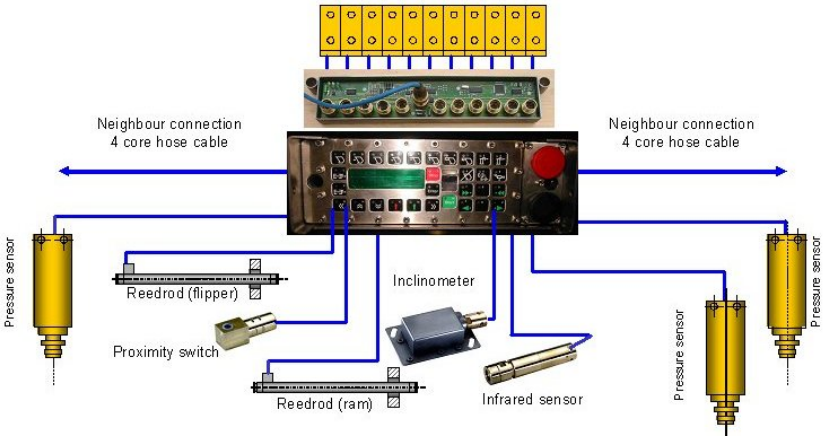
As the Plow passes each roof support, the support will push the programmed increment of advance (this is generally between 50 and 200mm dependant upon many factors. When the roof support realizes that it has insufficient stroke left in the advancing ram to achieve its next “push”, it will automatically lower and advance up to the face conveyor and re-set to the roof. The supports are staggered in groups of four or five to avoid supports too close together from lowering from the roof at the same time this eliminating the risk of roof collapse along the working face.



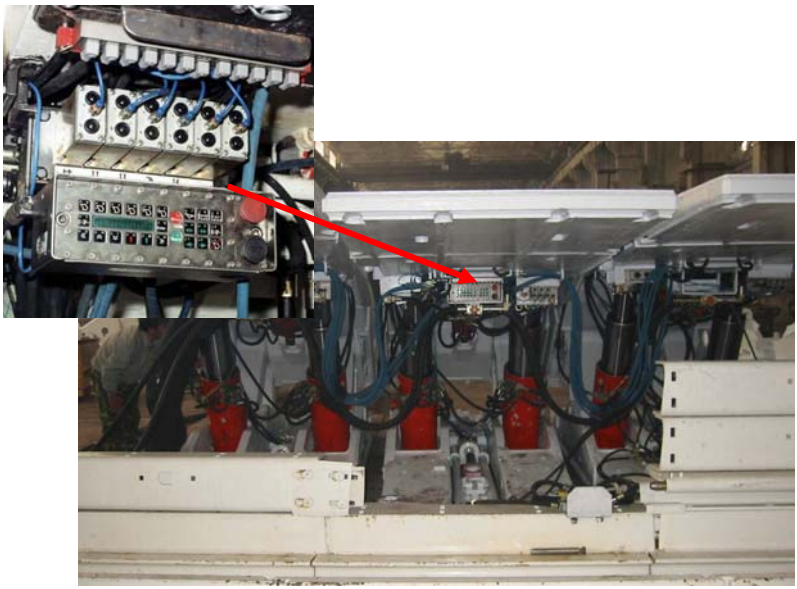
Powered Roof Supports

Each roof support is fitted with a number of sensors. Information is passed from the sensors to the “in-shield" processor. This information is communicated between neighbouring roof supports and in turn communicated with the main control units located it the “miners cabin” or control room. The appropriate instructions are then sent to the “in-shield” solenoid valves which in turn operate the main hydraulic valves thus achieving the required functions of the roof support. The process is very fast (milliseconds) and therefore to the observer instantaneous.

The general arrangement of the hardware comprising of various sensors, the processor / controller, solenoid driver, solenoid valves required to provide reliable and safe operation of the system in automatic mode is shown in the illustration below.

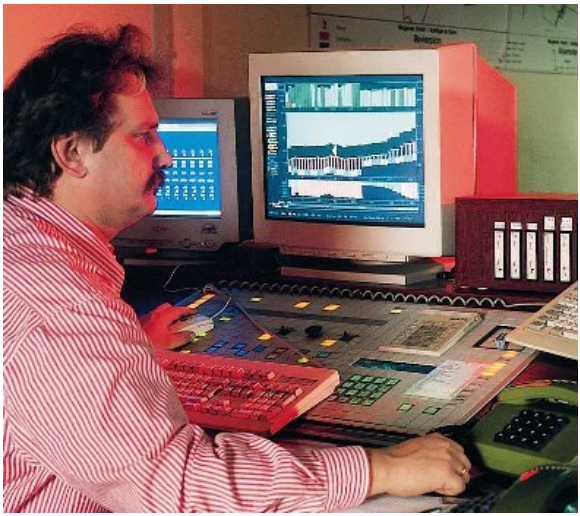


Schematic of "In-Shield" Automation Hardware fitted to a Powered Roof Support



Electronic Controls Fitted to Bucyrus Powered Supports to Facilitate Automation of the Plow Face

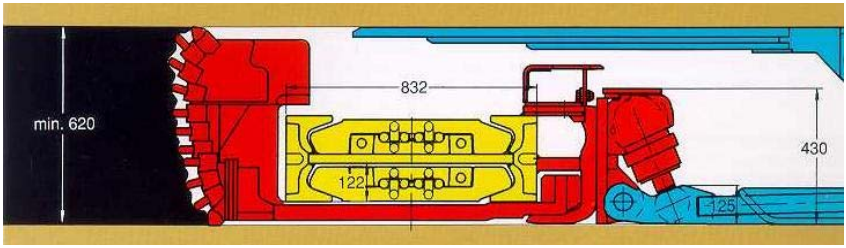
Miners Cabin – The Longwall Operator's
place of work if located Underground



Surface Control Room-The Longwall
Operators Place of Work in Germany

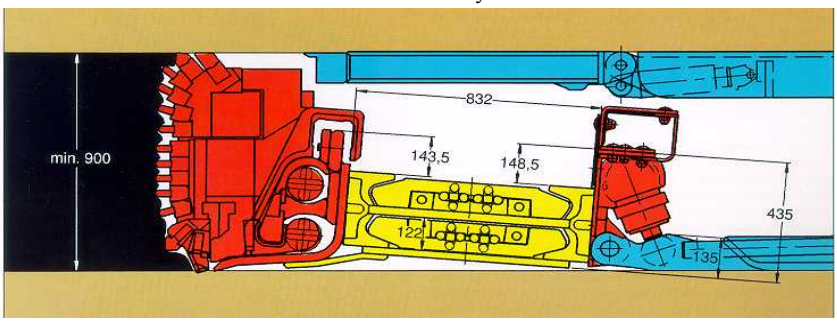
Plow Types and Height Ranges

Plows operate in coal seams varying in height from 0.6m to 2.2m. For the very low coal seams (below 0.8mm in height), a baseplate Plow (Reisshakenhobel) is utilised. This varies in design from the Gliding Plow (Gleithobel) by way of the fact that the haulage chain is located on the gob side of the conveyor due to the limited access on the face side of the armoured face conveyor and limited space for coal loading.

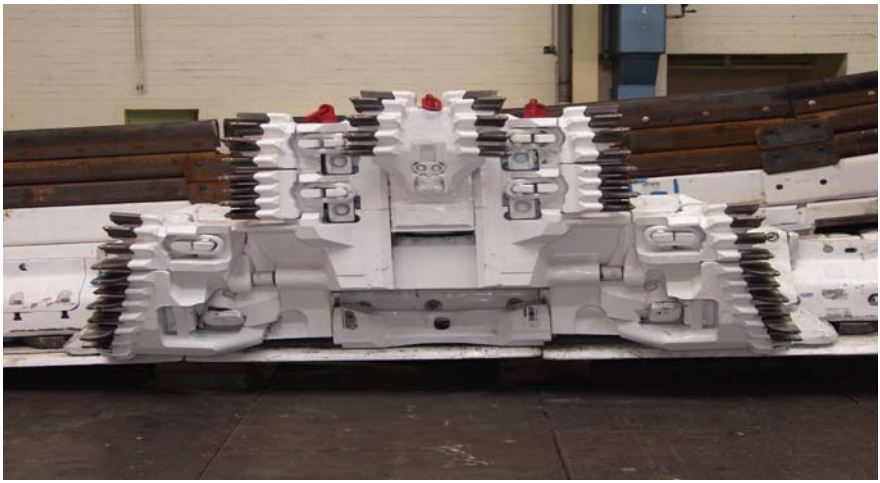


Bucyrus Reisshakenhobel Plow

The Gleithobel "N Type" Plow is suitable for Coal seams from 0.8m thick to and the Gleithobel 5.7 Plow is suitable for coal seams from 1m to 2.2m thick. The haulage chain is located on the face side of the face conveyor.



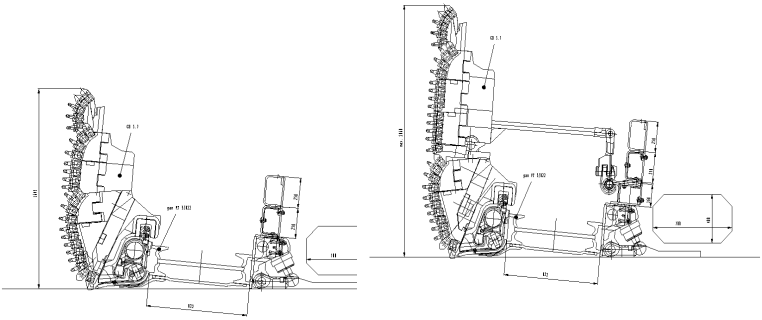
Bucyrus Gleithobel Plow



A Bucyrus Gleithobel Plow on Compatibility Trial

Cutting Height Adjustment

The Plow height is adjusted by the addition or removal of segments for permanent adjustment; however for temporary adjustment the centre turret is infinitely adjustable within the limits



Note: - For cutting heights above 1.6m additional stabilization is provided by installation of a stabilizing arm which is “trapped” to the face conveyor gob side spill plate.

Turret for Variable height Adjustment

Cutting System Evaluation

The Plow system is accurately designed to maximize the production capabilities to suit the mine requirements. This is achieved by performing an on site “cuttabilty” test. This establishes the cutting force required by the Plow from which the depth of cut relative to the Plow speeds for a given installed power. This information is then used to establish the potential maximum production and based upon the mine’s needs and capacity handling capabilities the conveying system is selected.

The cuttabilty test is performed by forcing a sensitized cutter bit through the coal or material required to be cut as close to the actual site as possible in the same coal seam as the application. The forces to break out the coal are accurately measured to establish the “coal hardness” and the results correlated to a data base which has been developed over a number of years. The data base compares results of many cuttabilty tests with actual results when the system is in operation.

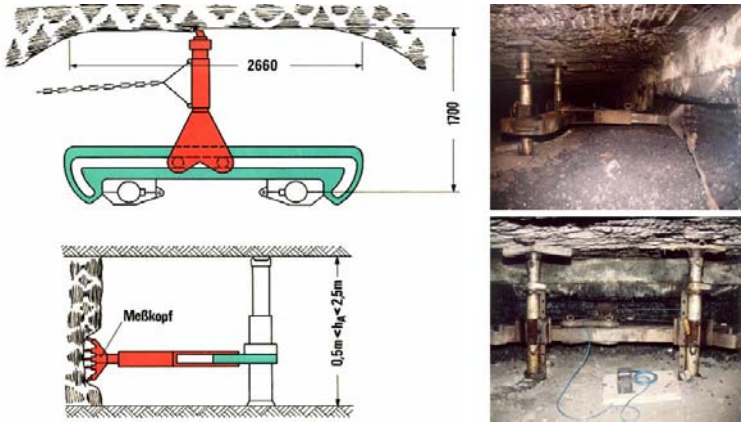
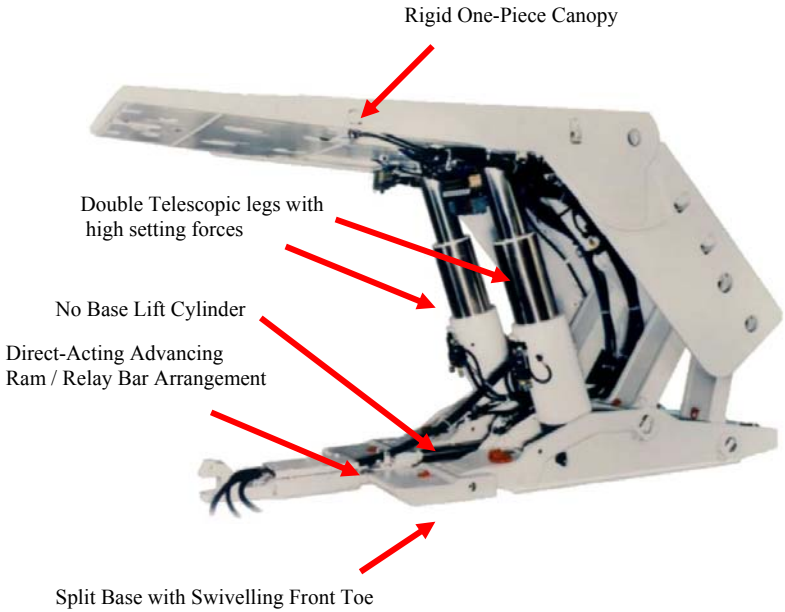


Illustration of a Cuttabilty Test to Ascertain the Suitability of a Plow System Beforehand

Powered Roof Support Design for Plow Faces

The Plow type of powered roof support are selected and sized relative to the coal seam to be extracted, to establish the height adjustment range, for support density and floor pressure requirements and of the nature of the roof and floor, all these factors are taken into account.

The main difference between a Plow type of roof support and a more conventional "rigid base" type, roof support is that the Plow type of roof support has a "split floating" pontoon base. This allows the relay bar which connects the roof support to the face conveyor to move vertically to facilitate horizon steering of the Plow. Base lifting is achieved by means of the system software by alternatively raising the left and right base pontoons on support advance.



A Modern Plow type of Powered Roof Support

Conclusions and Observations

The main components of the modern Plow longwall mining system have been improved and refined over a number of years, embracing the benefits of modern technology both mechanically and electro-hydraulically to overcome the difficulties that the Plow systems of yesteryear faced, from the early primitive systems initially used in the UK in the 1960's and early 1970's to the most advanced systems available at the present time.

The use of Plow technology to effectively mine the thinner coal seams left is rapidly spreading in many other parts of the world such as in Mexico, the Czech Republic, Kazakhstan and Russia.

In Peoples Republic of China for example where nine (9) such systems have recently been acquired, the Plow holds all production and productivity records in coal seams of two (2) meters thick or less.

As no operators are required on the longwall face continually, the working environment of the operator is improved dramatically.

The Plow longwall system is an excellent example of effectively applying modern technology to improve production, productivity, safety and the working environment.

Whilst the system is highly automated and extremely reliable, improvements are always being evaluated in an effort to deliver higher levels of performance, leading to better productivity and reliability with the application of new technology.

THE MIDLAND INSTITUTE OF MINING ENGINEERS TRUST FUND

Registered Charity No. 225472

The Trust fund originates from the 1960's when it was proposed and subsequently agreed that there should be a merger between the National Association of Colliery Managers (NACM) and the Institution of Mining Engineers, (IMinE).
In Yorkshire the two bodies were represented by the National Association of Colliery Managers (Yorkshire Branch), and the Midland Institute of Mining Engineers.
The merger of The IMinE and NACM was eventually approved, with NACM surrendering its Royal Charter on the 29th July 1969. Following much deliberation, the amended Charter and Bye Laws of the Institution of Mining Engineers were approved by the Privy Council on the 28th July 1971.

Following the merger, the Institution of Mining Engineers changed from a being a Federal Body to one of geographical Branches, with subscriptions being collected at national level by the Institution of Mining Engineers, rather than through the individual Branches. In Yorkshire donations were collected by the Midland Institute of Mining Engineers.

With this reorganisation the Council of the Midland Institute considered its financial position. Over the years through the wise guidance of the treasurer, Major Noel Webster, and the support of the Council, the investments held, under a recognized charitable status, were considerable, with the declared aims of providing funding to meet the objectives of the Midland Institute.
As protection for these funds and to continue the required support for the future it was decided by the Council to establish a relevant Trust Fund. Legal advice at the highest level was obtained through the guidance of the then National Coal Board, Yorkshire Division Legal Advisor, Mr. Charles Glover, and an eventual Trust Deed was signed on the 26th April 1971. Under the terms of the Trust Fund Deed, the funds were to be utilised primarily to enable the objectives of the Midland Institute of Mining Engineers to be met. The Trustees being given the scope to fund other related sections of the Institute provided they had similar objectives and offering similar opportunities for their members.

The objectives of the Trust Fund are declared as the advancement of Science and Practice of Mining Engineering, and related activities.

Following the establishment of the Trust Fund, The MIMinE was able to finance its annual activities, without the need to take any of the annual financial support available from the Institution of Mining Engineers at National level.
However in recent years due to rising costs of the Midland Institute of Mining Engineers associated with the many mergers that have occurred, funding available from the National Body has been taken and utilised.
Currently the Institute of Materials, Minerals and Mining is recognised as the national body and the Midland Institute of Mining Engineers being affiliated, applies for and receives an annual grant.

Over the years, due to sound investment by the Trustees, the funds have continued to remain on a sound and generally improving basis. Consequently the present situation enables the Fund to maintain substantial and relevant support to the current activities of the Midland Institute of Mining Engineers.
The Trustees welcome the diversification that has occurred from the mergers and the need for widening the interests of the Midland Institute of Mining Engineers participation and membership, whilst, at the same time, maintaining the highest standards. All of which are acceptable in relation to the overall declared objectives of the initial Trust Deed originally formed in 1971.

The Trustees continued to meet regularly throughout the period and have administered the Fund in accordance with the Trust Deed. Specific detailed information required by the Inland Revenue authorities and the Charity Commission has also been supplied during the scheduled sequence of meetings.

Trustees from left to right,
Back - Mr W J Tinsley; Mr C Rhodes; Mr J T Peary JP; Mr R Stevenson
Front - Mr A Tuke OBE; Mr G C Thorpe; Prof J F Tunnicliffe and Dr P D Binns

THE AMCO BURSARY FUND
Registered Charity No. 1080526

Mr. Henry Schmill, as Chief Executive of Amalgamated Construction Company Limited proposed that the AMCO Corporation would make a generous donation to set up a Trust Fund to be known as the AMCO Bursary.
A Trust Deed was made on the 11th November 1999, by the Council of the Yorkshire Branch of the Institute of Mining and Metallurgy.
The original objects of the AMCO Bursary was
"for the charitable purpose in the enhancement of education in the science and practice of mining and or such other subject areas as may be defined by the Institution of Mining and Metallurgy. In particular to provide short-term work related training for students who may have difficulties in practical instruction and work participation".

An application was submitted to the Charity Commission on the 17th December 1999 for charity status. A Supplemental Deed was made on the 30th March 2000 that a variation be made to the principle deed to change the wording of the objects to read *"……work related training for students who may have difficulties in obtaining practical instruction and work participation".*

The AMCO Bursary was entered in the central register of Charities on the 2nd May 2000, registered number 1080526.
The ex-officio Trustees are "President, Immediate Past-President, Vice-President, Secretary and Treasurer of the Yorkshire Branch of the Institute of Mining and Metallurgy or its successor body".
The Midland Institute of Mining Engineers is the successor body and the Trustees continue to distribute funds in line with the Trust Deed.

Trustees:

The Trustees are the elected Officers of the Midland Institute of Mining Engineers:

Branch President:	Mr Bob Leeming	Chairman
Branch Secretary:	Mr Charles Rhodes	Secretary/Treasurer
Branch Treasurer:	Mr Norman Riley	
Immediate Past President:	Dr Darron Dixon-Hardy	
Vice President:	Mr Wyn Griffith	

This is the eighth year of the Charity and the above trustees were elected to office on the 11th October, 2007.

The object of the charity is for the charitable purpose in the advancement of education in the science and practice of mining and or such other subject areas as may be defined by The Institution of Mining and Metallurgy. In particular to provide short-term work related training for students who may have difficulties in obtaining practical instruction and work participation.

THE PEAKE FUND
Registered Charity No. 1107616

The Peake Fund was established through the generosity of Major George Herbert Peake on 25th January 1917 to be devoted to the interests of mining and applied as the Council of the Midland Institute of Mining Engineers thought fit.
After some time, monies invested in the Peake Fund were accumulating and a committee, appointed by the Council, advised that the funds should be used to provide a travelling scholarship in addition to the Peake medal.
A Trust Deed was made on the 21st March 1930 between Mr George Herbert Peake and the Midland Institute of Mining Engineers to establish the Peake Fund and set out conditions for a Travelling Scholarship and other awards.

To this day the principal award, the "Peake Travelling Scholarship" offers funds for the associated travelling and subsistence costs at home and/or abroad of successful applicants that will enable individual scholars to enhance the value of a suggested field of study related to their overall education, training and experience in the science and practice of mining engineering.
A secondary award can be made by the Trust to other suitable applicants either on a group or an individual basis who seek financial support in a field related to the advancement of education in the science and practice in mining engineering.

A Supplementary Deed was made on 8th November 1963, by the Midland Institute of Mining Engineers in which an additional £1000 was donated from its general funds.
In 1978 David Peake, a descendant of Major George Herbert Peake made a further generous donation of £2000.

Although the Peake Fund enjoyed charitable status as part of the Midland Institute of Mining Engineers, on the 13th January 2005 the fund was registered with the Charity Commission in its own right as "The Peake Travelling Scholarship" and given the registered charity number 1107616.

After many years the original generous gift from George Herbert Peake and the additions, including from other sources, continues to support study related to the overall education, training and experience in the science and practice of mining engineering.
Since 1995 almost £19,000 has been distributed to members of the Midland Institute of Mining Engineers in the form of Scholarships or Additional awards in line with the Trust Deed.

Following closure of the Nottinghamshire Branch of the IMM and its members being invited to become members of the Midland Institute of Mining Engineers, the trustees of the Midland Counties Institute of Engineers Trust Fund transferred its monetary assets amounting to £40,910 to the Peake Trust Fund in 2008. The conditions of both Peake and Midland Counties funds being of a similar nature.

Any award from the Fund will be made by the Council of the Midland Institute of Mining Engineers following recommendation by its Finance and Awards Committee and will be regulated by the following Conditions.

TRAVELLING SCHOLARSHIP

1. Candidates must have been a member of the Midland Institute of Mining Engineers for at least twelve months.
2. Applications will be considered from any member over the age of 21.
3. No member will be permitted to receive more than one Scholarship.
4. Any application will need to be supported by an appraisal of financial costs involved.
5. Candidates will be required to submit a completed application form that will be supplied on request by the Secretary of the Midland Institute of Mining Engineers. This form will make provision for providing details of the education, training and experience of the applicant and the names of two referees, one academic and one industrial from whom confidential reports may be obtained.
6. Following initial appraisal of applicants, selected candidates may be required to attend for interview in which case they will be expected to submit to the Secretary, before the interview, a synopsis not exceeding 500 words describing the scheme of study which they wish to follow accompanied by details of the financial costs involved.
7. An award will be made in relation to the relevance of the candidate's proposal along with his demonstrated academic ability, experience and overall personality.
8. A Scholarship will normally be offered each year, but the decision of the Council shall be final and, if in their opinion there is no suitable candidate they may withhold the Scholarship.

Successful Candidates will be required –

1. To devote such time as may be agreed by Council in any one year to fulfil the objectives of the proposed study.
2. At the completion of the Scholarship, to submit to the Council three copies of a Final Report within twelve weeks of completion of the visit, giving a general view of the results of the investigations and of the conclusions drawn there from.
3. The Council of the Midland Institute of Mining Engineers will, where possible, assist the candidate in organising visits. Notes of Guidance which gives assistance and advice for the collection of information, data and format for the Final Report will be provided by the Secretary of the Midland Institute of Mining Engineers.
4. It is a firm condition of the award that the candidate personally makes adequate insurance arrangements to cover all aspects of the visit, details of which will be provided to the Secretary of the Midland Institute of Mining Engineers.
5. 90% of the total amount awarded may be payable in advance. A balance 10% will be paid on receipt of the satisfactory Final Report.
6. Any reports relating to the award shall be the sole property of the Midland Institute of Mining Engineers and publications of them, in whole or in part, shall be entirely at the discretion of the Council. Council will not unreasonably withhold permission in relation to this matter and will encourage the candidate's interest in wider publication.

ADDITIONAL AWARDS

1. Limited funds may be made available at Council's discretion for secondary awards. Any application must fully satisfy the objectives of the Trust relating to the advancement of education, science and practice in the field of mining engineering.
2. All applicants must be members of the Midland Institute of Mining Engineers and is open to all members.
3. Written application should be made to the Secretary of the Midland Institute of Mining Engineers.
4. Any application will need to be supported by an appraisal of financial costs involved.
5. At the completion of the study a Final Report must be submitted to the Secretary of the Midland Institute of Mining Engineers within twelve weeks.
6. 80% of the total amount of the award may be payable in advance. The remaining 20% will be paid on the receipt of a satisfactory Final Report.

Previous Awards of The Peake Travelling Scholarship

1925-26 Harry Halmshaw
1928-29 T F S Brass, BA (Cantab) Hons
1930-31 R Neill, BEng (Min)
1931-32 R E Ward, BEng (Min) Hons
1935-36 A G Douthwaite, BSc (Min)
1936-37 J Ridley Gunn, BSc (Min)
1938-39 F H Baker, ARSM, BSc
1945-46 T L Carr, BEng (Min) (Hons)
1948-49 J V Greensmith, BEng (Min)
1951-52 P. Sharp, B.Eng. (Min.)
1955-56 F Fairclough, Jnr, BSc (Min) (Hons First-Class)
1957-58 M Brocklesby, MA (Cantab), B.Eng
1959-60 J M Bennett, BEng (Min) (Hons)
D R Moore, BEng (Min)
A E Bunniss
1962-63 J C H Longden, BSc, ARSM, CEng
1963-64 J A Oat
1964-65 R L Wilson, CEng
1966-67 R Swain
1967-68 I H Forsyth
1969-70 M Ellis
1970-71 A A Lindsay, CEng
1973-74 A F G Woodley, BA (Cantab), BSc (Hons)
1974-75 S P Wing, BSc
1975-76 P R M Stephens
1980-81 E J Downes
1982 W J Tinsley
1984 S R Newson
1985 P Clapham
1988 R W Forrest

1990	A D Hall
1991	M Tucker
1993	P Baines and M Haworth
1994	P T Burgin
1995	D Sykes
1996	G A Watson
1998	D Mabley
1999	P Nicholson
2001	M Thompson
2003	Dr D Dixon-Hardy
2004	M Pegden
2005	A Fynn

WEBSTER TRAVELLING PRIZE
Registered Charity No. 1107632

A Travelling Prize established by the Midland Institute of Mining Engineers is awarded by the Institute from time to time. This prize is called the Noel Webster Travelling Prize in recognition of Major Webster's contribution to the Institute and the junior section in particular. Major Noel Edwin Webster, OBE, MC subsequently made a generous gift to establish a permanent endowment in response to which the Council of the Midland Institute of Mining Engineers applied a similar sum of money to establish the fund. A Trust Deed dated 7th November 1963 between Major Webster and the Midland Institute of Mining Engineers was drawn up and the Noel Webster Travelling prize fund was established.

The principal award made by the Fund is "The Webster Travelling Scholarship". This is offered to fund the associated travelling and subsistence costs at home and/or abroad of successful applicants that will enable individual scholars to enhance the value of a suggested field of study related to their overall education, training and experience in the science and practice of mining engineering.
A secondary award can be made from the fund to other suitable applicants either on a group or an individual basis who seek financial support in the fields related to the advancement of education in the science and practice in mining engineering.

Although the Noel Webster Travelling prize Fund enjoyed charitable status as part of the Midland Institute of Mining Engineers, on the 14th January 2005 the fund was registered with the Charity Commission in its own right as "Noel Webster Travelling prize" and given the registered charity number 1107632.
Since 1995 in excess of £37,000 has been distributed to members of the Midland Institute of Mining Engineers in the form of Scholarships or Additional awards in line with the Trust Deed.

Any award from the Fund will be made by the Council of the Midland Institute of Mining Engineers following recommendation by its Finance and Awards Committee and will be regulated by the following Conditions.

TRAVELLING SCHOLARSHIP

1. Candidates must have been a member of the Midland Institute of Mining Engineers for at least twelve months.
2. Applications will be considered from any member under 35 years of age.
3. No member will be permitted to receive more than one Scholarship.
4. Any application will need to be supported by an appraisal of financial costs involved.
5. Candidates will be required to submit a completed application form that will be supplied on request by the Secretary of the Midland Institute of Mining Engineers. This form will make provision for providing details of the education, training and experience of the applicant and the names of two referees, one academic and one industrial from whom confidential reports may be obtained.
6. Following initial appraisal of applicants, selected candidates may also be required to attend for interview, in which case they will be expected to submit to the

Secretary, before the interview, a synopsis not exceeding 500 words describing the scheme of study which they wish to follow accompanied by detailed financial costs involved.

7. An award will be made in relation to the relevance of the candidate's proposal along with his demonstrated academic ability, experience and overall personality.
8. A Scholarship will normally be offered each year, but the decision of the Council shall be final and, if in their opinion there is no suitable candidate they may withhold the Scholarship.
9. Applicants will normally be expected to be participating members of the Younger Members and Student Section.

Successful candidates will be required –

1. To devote such time as may be agreed by Council in any one year to fulfil the objectives of the proposed study.
2. At the completion of the Scholarship, to submit to the Council three copies of a Final Report within twelve weeks of the visit, giving a general view of the results of the investigations and of the conclusions drawn there from.
3. The Council of the Midland Institute of Mining Engineers will, where possible, assist the candidate in organising visits. Notes of Guidance which gives assistance and advice for the collection of information, data and format for the Final Report will be provided by the Secretary of the Midland Institute of Mining Engineers.
4. It is a firm condition of the award that the candidate personally makes adequate insurance arrangements to cover all aspects of the visit, details of which will be provided to the Secretary of the Midland Institute of Mining Engineers.
5. 90% of the total amount awarded may be payable in advance. A balance of 10% will be paid on receipt of the satisfactory Final Report.
6. Any reports relating to the award shall be the sole property of the Council of the Midland Institute of Mining Engineers and publications of them, in whole or in part, shall be entirely at the discretion of the Council. Council will not unreasonably withhold permission in relation to this matter and will encourage the candidate's interest in wider publication.

ADDITIONAL AWARDS

1. Limited funds may be made available at Council's discretion for secondary awards. Any application must fully satisfy the objectives of the Trust relating to the advancement of education, science and practice in the field of mining engineering.
2. All applicants must be members of the Midland Institute of Mining Engineers and will normally be expected to be participating members of The Younger Members and Student Section and be under the age of 35.
3. Written application should be made to the Secretary of the Midland Institute of Mining Engineers.
4. Any application will need to be supported by an appraisal of financial costs involved.
5. At the completion of the study a Final Report must be submitted to the Secretary of the Midland Institute of Mining Engineers within twelve weeks.
6. 80% of the total amount of the award maybe payable in advance. The remaining 20% will be paid on the receipt of a satisfactory Final Report.

Previous Awards of 'Noel Webster' Travelling Scholarship

1960-61	R Barradell	1983	G M Jones
	P Speight	1984	M K Tucker
1961-62	I W Smith	1985	P W Sharman
1962-63	B Blanchard	1986	W P Cooke
1963-64	H H Forster	1987	M G Walsh
	P D Warburton	1989	P Baines
1964-65	B H Jackson	1990	P McHale
	M Pike	1991	M Haworth
1966-67	I J Brown	1993	A D Hall
1967-68	P Nutall		B Blessed
1968-69	A J Worbey	1994	M Thomson
1969-70	A Hartley	1995	C J Rogers
1970-71	D Evans	1996	T Wastell
1971-72	J S Sumnall	1997	S G Dobson
1973-74	L Bryan,	1998	J Savage
1975-76	R J Cole	2000	R Newton
1978-79	L R Stace	2001	G Watson
1979-80	M Clarke	2004	J Engels
1981-82	E McWilliams	2006	S Hosein

REPORTS FROM TRAVELLING SCHOLARSHIPS

Available for Young Members and Student Section to borrow

1980	Mining Systems in the Sydney Basin Coalfield	M Clarke
1984	Coal Mining Techniques in America	M K Tucker
1984	The Use of Roof-Bolting Techniques in Mines in West Germany and France	S R Newson
1985	High Output Face Designs (in the UK & Germany)	P Clapham
1985	Development and Performance for Retreat Longwall Mining	P W Sharman
1986	American Longwall	W P Cooke
1987	Low Cost Coal Production in N.S.W. Australia	M Walsh
1988	Coal Clearance in the United States	R W Forrest
1989	The Australian Experience - Ground Support Utilising Roofbolts and Cable Bolts	P Baines
1990	Australian Development Drivage Techniques	P McHale
1990	Assessment of Analytical Techniques used within Industry	A. D. Hall
1991	Managing the Potential of Longwall Development	M A Howarth
1991	American Longwall Mining, its Finance and Control	M Tucker
1993	Running the Business	P Baines, B Blessed, A D Hall, M Haworth
1994	The Airport Core Programme, Hong Kong	P Burgin, M Thomson
1995	Australia	D Sykes, C J Rogers
1996	The Mineral Extraction Techniques and Practices in Eastern Canada	G A Watson ,T Wastell
1997	Australia (New South Wales)	S G Dobson
1998	South Africa	D Mabley, J Savage
2000	USA 2000	P Nicholson, R Newton
2001	The Chinese Coal Industry-A Revolution?	G Watson, M Thompson
2004	Surface Mine and Blasting Tour of Australia	M Pegden
2004	Tailings Storage – Aussie Rules	J Engles
2005	Study of Abandoned Mine Safety in USA and UK	A Fynn
2006	Surface and Underground Mine Tour of Chile	S Hosein

PAPER COMPETITION

The J F Tunnicliffe Paper Competition – C S Littlewood Memorial Award

At the time of the merger of the Midland Institute of Mining Engineers and the Yorkshire Branch of the IMEMME, a similar award existed within the each of the two bodies.
The Tunnicliffe award was initiated in 1978 by the MIMinE Council in recognition of the work done by John Tunnicliffe on behalf of the young members of the Institute.
The C S Littlewood award was established by the Yorkshire South East Branch of the IMEMME, funded by a generous contribution from Baldwin and Francis Ltd, to commemorate the memory and name of a conscientious long term servant, Past National President and Branch President.
The two awards are now combined and with the funds available within the C S Littlewood Fund provides an annual cash prize for the best paper to be determined by a panel of judges from the Branch Council.

Competition Rules and Conditions of the Award

1. All the papers shall be the authors' own work.
2. Papers shal1 be submitted to the Young Members Section four weeks before the presentation date.
3. The presentation of the paper shall not exceed 20 minutes.
4. The judges will be selected from the Midland Institute of Mining Engineers Council on invitation by the Young Members Committee.
5. The judges' decision in relation to the competition is final.
6. The judges will award all, some or none of the available prize money.
7. Prize money will be provided from the C S Littlewood Memorial Award Fund and the sum to be presented each year to be determined by Council.
8. All authors shall be members of The Midland Institute of Mining Engineers.
9. All authors shall be 35 years or less on the presentation date.
10. The competition will normally be held each year.
11. The prize money and Tunnicliffe competition shield will normally be presented at the General Meeting of the branch following the competition.

The overall winner will be presented with a Certificate.

C S LITTLEWOOD AWARD

1980 M Godley	1985 T Richardson
1981 D Robinson	1989 A Soloski
1981 M Pinder	1994 R Allison

THE J F TUNNICLIFFE PAPER COMPETITION

1978 A J Eavis	1980 P V Butterwick
1979 N Wills	1981 R Haigh

1982 C R Beaumont
1983 R A Law
1984 J Millar
1985 C Walker
1986 R. Forrest and P. Baines
1987 P. Baines
1988 A. Hall
1989 C A Tibble and M J Thompson
1990 A Fake and A Camm
1991 D Sykes
1992 M Thompson
1993 C Rogers
1994 D Dixon and T Hunt
1995 A D Hall

J. F. TUNNICLIFFE PAPER COMPETITION AND C.S. LITTLEWOOD AWARD

1996 D Mabley
1997 J Savage
1999 G Watson
2000 M Pegden
2001 P Greenhalgh and G Yuill
2002 J Engels
2003 J Engels
2004 G Speakman
2005 G Speakman
2006 K Mosarwe
2007 P Moden
2008 L Bermingham

Professor J F Tunnicliffe presents Mr Liam Bermingham with the trophy for the J F Tunnicliffe and C S Littlewood Competition at the 150th Year Celebratory Dinner on 14th March 2008

MINING TECHNOLOGY DIVISION of the IOM3 and IMMa

As one of the technical Divisions of the Institute of Materials, Minerals and Mining (IOM^3), we work under the umbrella of the International Mining and Minerals Association (IMMa) to support the mining and related industries worldwide, by providing a focus for the exchange of knowledge on all aspects of mining technology.

IMMa has four technical divisions: Applied Earth Science, Mineral Processing & Extractive Metallurgy, Mining Technology and Petroleum & Drilling Engineering.
IMMa's purpose is to serve the members of IOM3 with interests in the mining, minerals and petroleum (drilling) industries and to provide a broad focus both internally within the Institute and externally for the world wide community of associated professionals. It encompasses all the interests that resided in the former Institution of Mining and Metallurgy (IMM), which merged with the Institute of Materials in 2002 to form IOM3.

Some key current objectives of IMMa are to:-

- work closely with the minerals-related divisions to ensure visibility of the minerals industry within the Institute;
- promote and co-ordinate transfer of information by means of national and international conferences, local conferences and seminars, Materials World, the IOM3 website and the Mining and Minerals Library;
- provide a link between the local associations having mining and minerals interests (both home and overseas) and the Council of the Institute;
- forge links with other organizations to promote the objectives of the Institute and the interests of the members;
- promote the visibility and prestige of the mining and minerals-related professions by making nominations for relevant Institute Awards;
- maintain contacts with academia and industry to ensure that the needs of both are appropriately addressed by the Institute;
- encourage membership of IOM3 by the mining and minerals industry community worldwide;
- promote the Mining and Minerals library and related information services;
- promote the visibility of the mining and minerals industry in society.

At the time of writing, the divisions within IMMa are working closely to develop a more coherent organization where IMMa takes the lead on most institutional and international matters and the divisions continue to develop conferences, meetings, journals and other publications in their specialist areas.
We welcome suggestions and feedback on how we can provide a better service to members of IOM^3 and indeed any professionals who have an interest in the mining and minerals industries.

Professor Robert (Bob) Pine
Chairman, Mining Technology Division
Email: r.j.pine@exeter.ac.uk
Web links:
Mining Technology Division: http://www.iom3.org/mining-technology-division
IMMa: http://www.iom3.org/content/imma-international-mining-minerals-association

It was standing room only at the public launch of the International Mining and Minerals Association (IMMa) at the IOM3 headquarters in Carlton House Terrace on June 17th, 2008.
An audience of over 100 heard Professor John Monhemius, the chairman of IMMa, explain that the four resources divisions of the Institute had worked together to create IMMa to increase their visibility to the outside world.
He described how the resources divisions had originally been created from the membership of the Institution of Mining and Metallurgy (IMM), when it merged with the Institute of Materials in 2002 to form the IOM3. This arrangement had led to a loss of identity and a consequent drop in membership of the minerals divisions and so, in 2007, IMMa was created to form a platform for future growth.

Professor Monhemius emphasised that IMMa is the successor to the IMM and it is now the focus for mining and minerals members within the federal structure of the IOM3. It provides the facilities and services required by today's professional engineers and it is their voice to industry, government, the academic world and the general public.

IMMa embraces all the professions within the minerals industries, including, exploration, mining, petroleum and engineering geologists, geotechnical engineers, mining engineers, mineral processors, extractive metallurgists, petroleum engineers, drilling engineers and environmental engineers.

Background Questions and Answers

Q. When was IMMa formed?
A. 1st January, 2007.

Q. Why was IMMa formed?
A. When the Institution of Mining and Metallurgy (IMM) merged with the Institute of Materials in 2003 to form the Institute of Material, Minerals and Mining (IOM3), the IMM was split into four divisions: Applied Earth Sciences, Mineral Processing & Extractive Metallurgy, Mining Technology and Petroleum & Drilling Engineering. These 4 new divisions joined the 12 other technical divisions that together make up the IOM3 and this partition of the IMM membership led to a loss of identity within the enlarged organization. In order to counter this identity loss and to form a platform for future growth, the minerals divisions worked together to create IMMa, whose function is to deal with Institute business that is common to the four divisions and to be the interface with their membership and the outside world.

Q. Is IMMa part of IOM3?
A. Yes. IMMa is an umbrella organization within the IOM3 that embraces the four minerals divisions. IMMa is the successor to the IMM under the federal structure of the IOM3

Q. Will the minerals divisions continue to exist?
A. Yes, but the minerals divisions will in future deal mainly with technical matters specific to their disciplines, such as conferences and publications, while IMMa will deal with business that is common to all four divisions.

Q. Who runs IMMa?
A. IMMa is run by a committee that consists of the chairmen of the minerals divisions, plus two other members from the board of each division, together with representatives from other relevant IOM3 boards and committees. The chairmanship of the IMMa committee rotates periodically among the divisional chairmen.

MEMBERSHIP

The following list of members of the Midland Institute of Mining Engineers is taken from the IOM^3 database (correct to August 2008) and includes of membership and registration with engineering council at this time.

Over a number of years the Midland Institute of Mining Engineers has been involved with the carrying out of professional review interviews. These reviews are part of the requirements for membership of IOM^3 and registration with Engineering Council ^{UK}. The Midland Institute of Mining Engineers has representatives who are able to interview candidates over a wide range of disciplines including Metallurgy and Minerals Processing Technology; Geology; Geotechnical Engineering; Mining Engineering and Mining Electrical and Mechanical Engineering.

If any member feels that they could contribute to this process then they are asked to contact either IOM^3 membership or the Honorary Secretary.

Members are reminded of the opportunities for upgrade that are available and all members are encouraged to avail themselves of this process.

> "We have been extremely pleased with the involvement of MIMinE in the whole membership process and their desire to assist members to upgrade their membership status to include Engineering/Science Council registration where appropriate. This has led to a number of new members and upgrading several existing members' right up to Fellow grade in some cases. A commitment to act as interviewers/mentors and to help members with CPD is what makes IOM^3 function and without this volunteer network the Institute would simply not exist. During the latter part of 2007 in to 2008 new benefits came on-stream including online CPD recording and societies such as MIMinE provide a valuable opportunity for CPD through local meetings as well as networking and renewing friendships. We hope that MIMinE/IOM^3 continues to provide you with what you need from a professional Institute.
>
> David W Arthur
> Head of Member Services
> Institute of Materials Minerals and Mining

LIST OF MEMBERS 2007/2008

Removed for data protection

PAST PRESIDENTS OF THE MIDLAND INSTITUTE OF MINING ENGINEERS

1857-69 *J T Woodhouse*
1869-72 *T W Embleton*
1872-75 *W P Maddison*
1875-78 *T W Embleton*
1878-81 *R Carter, CE, FGS*
1881-84 *T Carrington, CE, FGS*
1884-85 *T W Jeffcock*
1885-87 *A M Chambers*
1887-88 *T W Embleton*
1888-90 *C E Rhodes, MICE, FGS*
1890-92 *Joseph Mitchell, MICE, FGS*
1892-94 *Sir William E Garforth*
1894-96 *J Nevin*
1896-98 *G B Walker, MICE*
1898-19 0 *W H Chambers*
1900-02 *J Gerrard*
1902-04 *H B Nash*
1904-06 *Col T W Mitchell, AMICE*
J R R Wilson
1906-07 *Sir William Walker, CBE*
1907-08 *Sir William Walker, CBE*
1908-10 *M H Habershon*
1910-11 *I Hodges*
1911-13 *Prof F W Hardwick, MA*
1913-15 *Walter Hargreaves, JP, LLD*
1915-17 *C C Ellison*
1917-19 *W D Lloyd, JP*
1919-21 *J H W Laverick, JP, DEng MICE*
1921-23 *Lt-Col Harry Rhodes, TD, MICE*
1923-25 *John Brass, MICE*
1925-27 *Robert Clive*
1927-29 *D H Currer Briggs, MBE, JP, MA*
1929-32 *Prof R V Wheeler, DSc, FlCFGS*
1932-34 *A C F Assinder*
1934-36 *Prof Douglas Hay, MC, BSc, MICE*
1936-38 *Basil H Pickering, MC, JP*
1938-39 *Sir W Benton-Jones, Bart, LLD*
1939-41 *D MacGregor*
1941-42 *H M Hudspeth, DSO, MC, MSc*
1942-43 *A S Blenkinsop, JP*
1943-44 *Major N E Webster, OBE, MC,DEng*
1944-46 *H Watson Smith,CBE, JP, MICE*
1946-47 *Major T W Adam, MC, AMICE*
1947-48 *Major H J Humphrys, CBE, DS, MC*
1948-50 *Prof I C F Statham, MEng (Min)*

1950-51 *J G Bond, BA (Cantab)*
1951-52 *R G Baker, CBE, BEng (Min)*
1952-54 *H A Longden, BSc (Hons), FREng*
1954-55 *G C Payne, BSc, CEng*
1955-57 *N Hulley*
1957-58 *H Saul, BSc (Eng)*
1958-59 *H J Atkinson, OBE*
1959-60 *F S Atkinson, MEng*
1960-61 *J T Whetton, DSO, OBE, MSc*
1961-62 *F V Tideswell, OBE, CEng*
1962-63 *G A Corden, BSc, CEng*
1963-64 *J E Longden, CEng, JP*
1964-65 *A Wright, MEng, CEng*
1965-66 *Major J A Peasegood, TD*
1966-67 *C Machin, JP, CEng*
1967-68 E Hoyle, CEng
1968-69 *Prof H J King, CBE, BSc, FR.Eng*
1969-70 *W J Charlton, OBE, MSc, CEng.*
1970-71 H T Ramsey, CBE, MSc, CEng
1971-72 *J Blunt, CEng*
1972-73 P I Allsop, BEng (Hons), CEng
1973-74 W Forrest, OBE,TD,BSc(Hon),PhD, FREng
1974-75 G C Thorpe, BEng (Min), CEng
1975-76 C W Turner, CEng
1976-77 F Ramsden, CEng, MBIM
1977-78 P D Binns, BSc, PhD, CEng
1978-79 J F Tunnicliffe, BSc (Hons), FREng
1979-80 C Shepherd, BEng, CEng, FGS
1980-81 *W M Eaton, OBE, BSc, CEng*
1981-82 C T Massey, OBE, BSc (Hons), CEng
1982-83 *R Cowles, CEng (Min), FREng, FIMinE*
1983-84 A W Tuke, OBE, CEng, FBIM
1984-85 *P Turner, BSc (Min), CEng, ARICS*
1985-86 *R A Bonell, CEng, FIMinE*
1986-87 P Hinchliffe, BSc(Hons), CEng, FIMinE
1987-88 J T Pearey, CEng, FIMinE, JP
1988-89 *M J Haynes, BSc (Hons),CEng, FIMinE*
1989-90 D Moore, BSc (Hons), CEng, FIMinE
1990-91 E Horton, BSc (Hons), CEng, FBIH
1991-92 P M Davies, BEng (Hons), MPhil
1992-93 R G Siddall, BSc (Hons), FREng, CEng, FIMinE, FIMgt
1993-94 Dr J McQuaid, CB, DSc, FREng
1994-95 A Houghton, OBE, CEng

PAST PRESIDENTS OF THE INSTITUTION OF MINING ENGINEERS (YORKSHIRE BRANCH)

1995-1996 A Houghton, OBE, CEng, FIMinE
1996-1997 P Hetherington, BSc, IEng, FIMinE
1997-1998 P S Lewis, BSc, CEng, FIMinE

PAST PRESIDENTS OF THE INSTITUTION OF MINING AND METALLURGY (YORKSHIRE BRANCH)

1998-1999 R Stevenson, CEng, FIMMM
1999-2000 W J Tinsley, BSc (Hons), CEng, FIMMM
2000-2001 N Hardie, BEng, CEng, FIMMM
2001-2002 Dr A Auld, BSc, PhD, C Eng, FICE, FIMMM

PAST PRESIDENTS OF THE MIDLAND INSTITUTE OF MINING ENGINEERS

2002-2003 K Irving, BEng, MBA, CEng, FIMMM, ARSM
2003-2004 Dr R J Fowell, BSc, MEng, PhD, CEng, FIMMM
2004-2005 Eur Ing P Scott, CEng, FIMMM
2005-2006 Eur Ing K Sabin, MBA, CEng, FIMMM
2006-2007 Dr D W Dixon-Hardy BEng (Hons), CEng, FIMMM

PAST PRESIDENTS OF THE INSTITUTE OF MINING ELECTRICAL AND MINING MECHANICAL ENGINEERS

YORKSHIRE NORTH WEST BRANCH

1920-22	J W Harbottle	1961-62	J F Smith
1922-23	T H Williams	1962-63	H W Plumb
1923-25	R Holiday	1963-64	T T. Gibson
1925-28	J C Cranshaw	1964-65	P Bowman
1928-30	T H Elliot	1965-66	T Griffiths
1930-31	C C Higgins	1966-67	S Collier
1931-33	H Watson-Smith	1967-68	J H Jackson
1933-34	J R Tommis	1968-69	*J Pickles*
1934-36	C C Bleach	1969-70	L Mitchell
1936-37	T F S Brass	1970-71	J S McQue
1937-38	F E Stone	1971-72	*N Littlewood*
1938-40	J Mann	1972-73	*A Gibson*
1940-41	F H Bevan	1973-74	H Thompson
1941-42	H Green	1974-75	*K Selby*
1942-43	E H Jones	1975-76	*S Russell*
1943-44	S Preston	1976-77	J H Jackson
1944-45	T J Green	1977-78	*J Wormald*
1945-46	J M Langley	1978-79	A Kirk
1946-47	J Mann	1979-80	J S McQue
1947-48	H McLoughlin	1980-81	G E Hancock
1948-49	J H Mallen	1981-82	*K Selby*
1949-50	F Allard	1982-83	J White
1950-51	J A Wood	1983-84	G Barnes
1951-52	M F Lodge	1984-85	J Hewitson
1952-53	T T Gibson	1985-86	G Kaye
1953-54	A Shaw	1986-87	P A Lowery
1954-55	D Stewart	1987-88	*D E Ellis*
1955-56	G W Eaton	1988-89	C Rhodes
1956-57	S C Walker	1989-90	F Schofield
1957-58	F T Hindley	1990-91	K Gilling
1958-59	G H Hirst	1991-92	B Dickinson
1959-60	J A Beatson	1992-93	J R Goodchild
1960-61	R Hathaway	1993-94	P W Goodier

Italics indicate deceased past presidents of the Yorkshire North West Branch of IMEMME.

Should any member of this past branch have information regarding the accuracy of this list then please inform the Honorary Secretary.

YORKSHIRE SOUTH EAST BRANCH

1936-37	T H Williams
1937-38	W J Barrow
1938-39	J W Smaller
1939-40	Capt. J Mackintosh
1940 41	J E Longden
1941-42	B Eddershaw
1942-43	E Taylor
1943-44	W H Littlewood
1944-45	R J Jones
1945-46	R D Alison
1946-47	W D Morton
1947-48	J V Rodgers
1949-50	R W Kirkop
1950-51	W G Thompson
1951-52	J E Pegg
1952-53	T M Muirhead
1953-54	R Burton
1954-55	W D Machen
1955-56	H Harvey
1956-57	R W Worrall
1957-58	A Bexon
1958-59	H Ingham
1959-60	H Brown
1960-61	C S Littlewood
1961-62	W H Littlewood
1962-63	T L Evans
1963-64	W Wynn
1964-65	J V Dickinson
1965-66	E Crossley
1966-67	D M Anderson
1967-68	J W Ibbotson
1968-69	G W Sutton
1969-70	W S Askew
1970-71	*G W Gray*
1971-72	G W Davidson
1972-73	J A Stewart
1973-74	H Ormondroyd
1974-75	G B Scott
1975-76	R Evans
1976-77	F Manship
1977-78	N E Riley
1978-79	N Hindley
1979-80	I R Beech
1980-81	D B Rowland
1981-82	W E Briggs
1982-83	J Bolton
1983-84	E E Richardson
1984-85	J H Cross
1985-86	P Cowdell
1986-87	F A Loukes
1987-88	W Tyas
1988-89	J Myers
1989-90	J Naylor
1990-91	G T Beverely
1991-92	C A Bowers
1992-93	F Garthwaite
1993-94	M Myronko

Italics indicate deceased past presidents of the Yorkshire South East Branch of IMEMME.

Should any member of this past branch have information regarding the accuracy of this list then please inform the Honorary Secretary.

YORKSHIRE BRANCH

1994-95	P Deakin

MEMBERS OF THE MIDLAND INSTITUTE OF MINING ENGINEERS WHO HAVE BEEN PRESIDENTS OF THE INSTITUTION OF MINING ENGINEERS.

1890-92 *T W Embleton*
1897-98 *Arthur M Chambers*
1907-08 *C E Rhodes, MICE, FGS*
1911-14 *Sir William Garforth*
1918- 19 *G B Walker, MICE*
1932-34 *John Brass, MICE*
1941 *John Brass, MICE (Acting)*
1945-48 *Prof Douglas Hay, MC, BSc, MICE*
1948-50 *Prof J A S Ritson, DSO, OBE, MC, TD, BSc*
1954-56 *Major N E Webster, OBE, MC, DEng*
1958-59 *H A Longden, BSc (Hons), FICE, FREng, CEng*
1960-61 *R G Baker, CBE, BEng (Min)*
1964-65 *G C Payne, BSc (Min)*
1965-66 *John Brass, CBE, BSc (Hons), FREng, CEng, FIMinE*
1974-75 *Prof H J King, CSE, BSc, PhD, FREng, CEng, FIMinE*
1975-76 *L J Mills, CBE, BSc (Hons), FREng, CEng*
1977-78 J E Wood, OBE, BSc (Hons), FREng, CEng, FIMinE
1978-79 W Forrest, OBE, TD, BSc (Hons), PhD, FREng, CEng, FIMinE
1981-82 C D Hornsby, BSc (Hons), CEng, FIMinE
1985-86 P I Allsop, BEng (Hons), CEng, FIMinE
1987-88 Prof J F Tunnicliffe, BSc (Hons), FREng, CEng, FIMinE
1992-93 C T Massey, OBE, BSc (Hons), FREng, CEng, FIMinE
1993-94 A W Tuke, OBE, CEng, FIMinE, FIBH
1995-96 R G Siddall, BSc (Hons), FREng, CEng, FIMinE, FIMgt
1996-97 J Naylor, BSc (Hons), CEng, FIMinE, MIMechE

YOUNG ENGINEERS PAST JUNIOR SECTION CHAIRMEN MIDLAND INSTITUTE

1954-55 F Small, BA
1955-56 MacFarlane, BSc, BEng, FGS
1956-57 R G Horsfield, BSc (Hons)
1957-58 A Cooper
1958-59 P Wainwright, BEng
1959-60 D J Graham, BEng
1960-61 D R Moore, BEng
1961-62 G M Poole, BEng
1962-63 O E Dyball
1963-64 J G Weston, BSc (Hons) (Min Eng), BSc (Hons) (Mech Eng)
1964-65 P D Warburton
1965-66 M M Locke
1966-67 P J O Alcock, BEng
1967-68 J T Ireland, CEng

1968-69 B H Jackson
1969-70 D A Pell
1970-74 R J Cole, CEng
1974-76 L Bryan, CEng
1976-77 P R M Stephens, BSc
1977-78 N B Wills
1978-79 G M Davies, BSc
1979-81 M Clarke
1981-82 J A Varah
1982-83 G M Jones
1983-84 *I Bickerton*
1984-85 V Wainwright
1985-86 C R Beaumont
1986-87 *J Oxby*
1987-88 W P Cooke
1988-89 N F Sawyer
1989-90 P Baines
1990-91 P McHale
1991-92 A D Hall
1992-93 B Blessed
1993-94 P T Burgin

YOUNG ENGINEERS PAST JUNIOR CHAIRMEN
INSTITUTION OF MINING ENGINEERS (YORKSHIRE BRANCH)

1994-95 D Sykes
1995-96 M Raby
1996-98 G A Watson

YOUNGER MEMBERS PAST CHAIRMEN
INSTITUTION OF MINING AND METALLURGY (YORKSHIRE BRANCH)

1998-1999 T J P Wastell
1999-2000 R Newton
2000-2001 P Nicholson
2001-2002 P Greenhalgh

YOUNGER MEMBERS PAST CHAIRMEN
MIDLAND INSTITUTE OF MINING ENGINEERS

2002-2003 P Andrews
2003-2004 M Kirk
2004-2006 J Engles
2006-2007 J McConnell

SUPPLEMENTARY MAILING LIST

2007/2008

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Eur Ing Dr G J M Woodrow, Deputy Chief Executive, The Institute of Materials, Minerals & Mining, Danum House, South Parade, Doncaster. DN1 2DY. **01302 380912. Email:** graham.woodrow@iom3.org

Prof R Pine, Chairman Mining Technology Division
01326 311788 Email: r.j.pine@exeter.ac.uk

Mr M Forrest, Chairman IMMa
020 8440 7725 Email: michael.forrest@miningresearch.co.uk

Mr C Rhodes, IEng, FIMMM, Honorary Secretary, The Midland Institute of Mining Engineers, c/o 48 Landing Lane, Hemingbrough, Selby, North Yorkshire YO8 6RA**.**
01757 638686 Email: mime.office@btinternet.com

Mr D Seath, CEng, FIMMM, Honorary Secretary, The Mining Institute of Scotland, 10 Woodhill Grove, Crossford, Dunfermline, Fife KY12 8YG. **01383 432856. Email:** D.Seath@btinternet.com

Mr J McCabe, Honorary Secretary, North of England Institute of Mining & Mechanical Engineers, Neville Hall, Westgate Road, Newcastle upon Tyne, NE1 1SE. **0191 2322201.** office@MiningInstitute.org.uk

Ms C Blackmore, Honorary Secretary, Western Institute of Mining and Minerals, Wardell Armstrong, Sir Henry Doulton House, Forge Lane, Etrurua, Stoke on Trent ST1 5NN **O845 111 7777 Email:** cblackmore@wardell-armstrong.com

Mr B Ward, CEng, MIMMM, Honorary Secretary, South Midlands Minerals & Mining Institute, 64 Barbara Avenue, Kirby Muxloe, Leicester. LE3 3HD. **0116 2393263.**

Mr T Forster , Honorary Secretary, Wales Institute of Mining and Metallurgy, Drummore, Highfield Road, Osbaston, Monmouth NP25 3HR. **01600 772688**
Email: tony.forster@hse.gsi.gov.uk

Miss L Carroll, Honorary Secretary, London and Southern Counties Minerals Industries Institute, MinSouth, c/o Wardell Armstrong, Sutherland House, 5-6 Argyll St, London W1F 7TE **020 7287 2872 Email:** lcarroll@wardell-armstrong.com

Dr P Foster, Honorary Secretary, South West Institute of Mining and Metallurgy, Camborne School of Mines, University of Exeter, Tremough Campus, Penryn, Cornwall. TR10 9EZ **01326 371828. Email:** p.j.foster@csm.ex.ac.uk