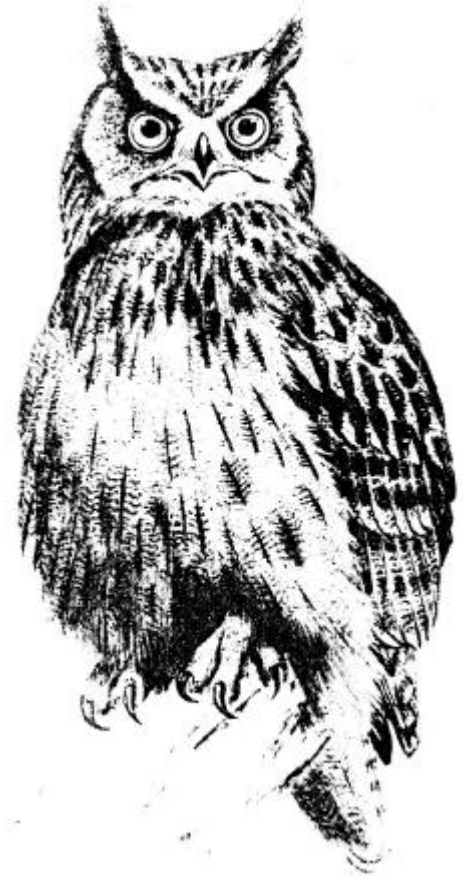


ALAM

Newsletter

Spring 2005



**The Association of
Lecturers in Agricultural Machinery**

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ALAM Newsletter Spring 2005

2004 Conference

You'll find more reports from the 2004 conference at Warwickshire College in this newsletter.

Claas Day

There's a report from this two-day event.

2005 Conference

I know it's only just 2005, but the conference this year is a tour of Northern Italy at Easter. Bookings have closed, but those fortunate enough to have a place, there's more information for you.

2005 AGM

Because the Annual Conference will be in Italy, we are hoping to have two-day event in July, incorporating the AGM meeting. Proposed dates 19th and 20th July 2005.

2006 Conference

Plans are under way for the 2006 conference at Sparsholt College, Hampshire, to be held during the week beginning 17th July 2006. Nigel Macpherson is putting together a programme, at an anticipated cost of around £230.

Membership

Thanks to everyone who has confirmed their addresses and details.

So that you can check your own membership status (and any colleagues!), we've put a list in this newsletter of all those who are paid-up members for this year 2004-05.

A very big thank you to everyone who pays by Standing Order (that's over 90% of all members), as it saves so much time for the treasurer, and makes it very easy to ensure everyone gets their newsletters regularly. Just a reminder - your Standing Orders will be taken on 1st April for the 2005-06 year.

Committee Members

The list of contact details for your committee members is in this newsletter, and will be a regular page in every newsletter. There are a number of changes, updates and corrections this time, so please make sure you use the latest information.

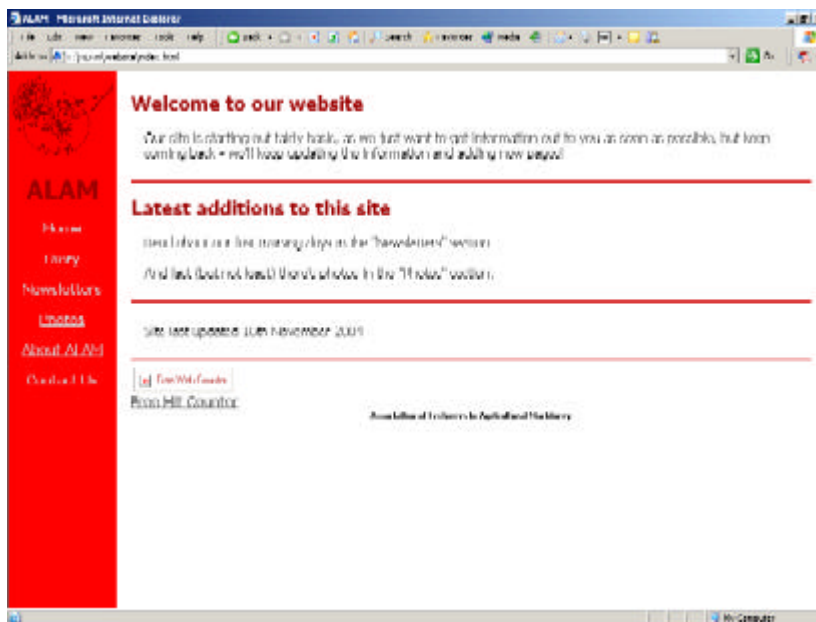
The New ALAM Website

ALAM has now got a website, at www.alam.org.uk. It has recent Newsletters (everything from 2000 onwards), photos from the conferences, and a diary page.

If you have **any** comments, ideas, or suggestions, please email them to david.heminsley@jcb.com. All incoming email is filtered for "profanities", so please don't be too rude!

For those interested in what makes things work (that'll be all ALAM members, then!), the website has been hand-coded in html using nothing more than a reference book and Windows Notepad, so there'll be no fancy graphics and effects for a while - I've only got to chapter 5!

Here's how it looks:

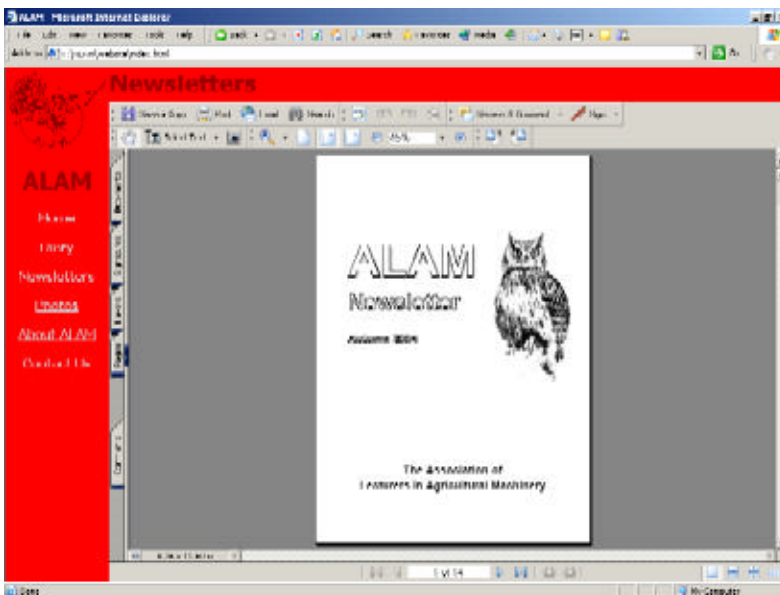


The homepage

Photographs can be clicked, and a larger version will be displayed – there are no restrictions on downloading or copying them.



The newsletters are in Adobe Acrobat Portable Document Format (.pdf files), and are also freely downloadable. I've put the file sizes on the end of the descriptions, so you can anticipate download times. I have tried to keep the files as small as possible.



The newsletters can be opened and read online, but you'll need Acrobat Reader.

The current committee



www.alam.org.uk

ALAM Committee 2004-05

Any changes since the last Newsletter are in **bold type**.

Position	Name	Work			Home	
		Place	Tel	Email	Tel	Email
Chairman	Graham Higginson	Walford College	01939 262164	g.higginson @wnsc.ac.uk	01691 671817	graham.higginson @ntlworld.com
Secretary	Peter Walley	Warwickshire College	01926 318269	pwalley @warkscol.ac.uk	01926 640883	
Treasurer	David Heminsley	JCB Training	01889 591300	david.heminsley @jcb.com	01889 566882	
Conference Organiser 2005	John Gough	Walford College	01939 262100 ext 2158	j.gough @wnsc.ac.uk	01630 685942	gough.j @btinternet.com
Committee	Nigel Macpherson	Sparsholt College	01962 776441	nmacpherson @sparsholt.ac.uk	01980 862102	
	Duncan Wilson	Duchy College	01209 722100	duncan.wilson @cornwall.ac.uk	01326 376710	
	Brian Kessell	Duchy College	01209 722100	brian.kessell @cornwall.ac.uk		
	Ryan Roberts	Retired				mail@ ariel1965.freereserve.co.uk

ALAM ANNUAL TECHNICAL CONFERENCE 2005

The Italian Job

The Plan so far:

The flights have been booked, we fly out on **Monday 28th March** from Stanstead at 11:10am to Turin, arriving at 14:10 on flight no FR462.

Coach to Caraglio near Cuneo approx 3hrs, where we stay at a hotel for 2 nights.
Coach travel between locations throughout visit.

Tuesday 29th Merlo manufacturing, Cuneo.

Wednesday 30th Graziano gear manufacturers, Cuneo - 2 sites; heat treatment and bevel gear technology.

Travel up to Treviglio east of Milan. Hotel accommodation 2 nights.

Thursday 31st Same Deutz Fahr manufacturing, Treviglio.

Friday 1st Ducati Motorcycles, Bologna. Hotel accommodation 2 nights.

Saturday 2nd Ferrari, Maranello.

Sunday 3rd Sightseeing and travel to Jesi near Ancona. Hotel accommodation 2 nights.

Monday 4th New Holland manufacturing.

Tuesday 5th April Fly out from Ancona at 13:30 to Stanstead arriving at 14:50

A few words about the flight requirements; I have group bookings for us in your individual names but it is important that the first name and your surname in your passport match those shown on the accompanying list,

If any don't please let me know within the next week.

In addition would all delegates send their **email addresses to John Gough**, by email preferably! so that he can circulate info quickly if or when the need arises. Thanks

You will need a valid passport with an expiry date that extends beyond our date of return!
Check in starts 2 hrs prior to departure, I will circulate booking code with final briefing notes.

Travel to Stanstead and parking: The following list of delegates will allow you to contact others who are also travelling from your direction with a view of sharing transport and parking costs.

John Gough
David Heminsley
Ian Coleman
Colin England
David Hinchcliffe
Brian Kessell
Duncan Wilson
Gwynfor Williams

Richard Heath
Emlyn Thomas
David James
Brian Poulson
Oliver Dunthorne
Christopher Keeble
John Jones
Ian Whitehead

Nigel MacPherson
John White
C Creasey
Jonathan Rostron
Roger Soper
Paul Wray
Nicholas Bevan
Paul Bevan

Classified Advertisements

Parts Offer

John Gough has a range of warranty return items sourced from JCB, which are available for colleges to use for teaching.

For full info about what is available, contact John by email at:

gough.j@btinternet.com - note this is a new email address

Phone - **01630 685 942** - evenings 7 to 10pm, please.



PROFI magazines
September 1996 to present,
approx 100 magazines.

Good condition

Cover price now £3.50 each,
will sell whole set for £100.

Ideal for the college library??

Contact David Heminsley 07971 273725

Chairman's Report 2004

It seems no time since last years, conference at Walford, where I picked up the reins, or was it the handlebars , of this job from my Cornish colleague and good friend Ryan Roberts, who had done a double stint as chairman, the circumstances for which I cannot immediately recall. Ryan had worked hard for our association in his quiet and efficient way and handed it over to me in good heart; so what have I been up to, you may ask?

Well my year started off with a bang... literally....but more of that later..... with the conference at Walford ably organised by Graham Higginson. For those not fortunate enough to attend, you missed another good one; with visits to JCB Transmissions, Kverneland, Kuhn, Fullwood, Ironbridge Gorge Museum and Technical presentations by Michelin and Valtra. There were extra curricular activities as well, involving precision judgement, high speed engine management and tyre adhesion testing, in a friendly and competitive manner, together with the more relaxing ale tasting event which went on each evening and has still to reach a conclusion!

I have still not discovered how Graham organised the finale to his conference but it would not be an exaggeration to say that it was electrifying ... and it finished with the biggest bangs that I have experienced in a long time. We worry about the durability of computer equipment on tractors, but anyone who sat through the Valtra presentation on the final morning of the conference could not fail to be impressed with the laptop computers that the two valiant Valtra men were using as the power went on and off like a Belisha beacon while the thunderstorm boomed on and on directly above us. Another tribute to today's technology.

And so to the seminars; it was intended to offer two events over the year, the first of which was hosted by the welding machinery manufacturer Fronius at their Midlands site at Bilston. This event was well attended (10 members) and a very educational and informative day was had by all, partly due I think to the fact that we were being trained by practical people with a deep interest in their subject. This is one of the major strengths of our organisation , we are able to offer and provide specific staff development on relevant topics which is industrially up to date and delivered by enthusiastic and experienced practitioners.

However, the second seminar has provided us with more of a challenge; initially it was hoped to offer something on electrics or hydraulics by Bosch but after much chasing about within the organisation we were unable to find the guy with necessary drive and enthusiasm to make things happen for us. So on to plan B, Those of you who have known me for some time will by now have realised that I have a fixation with air conditioning training.... This started about ten years ago, 1993 to be exact, when I missed an ALAM event run at Berkshire college by Robinair and organised by Vic Moore. It just goes to show how important it is to attend these seminars; because if not the future passage of your life may be altered!

Anyway enough of my fixations!

You will now understand why yet another offer of air conditioning training has appeared in our newsletter.....and I still haven't been on the course..... this is getting worse!

And so to draw these ramblings to a close. ALAM - the organisation runs for you, its members; your committee works hard to try to provide you with the sort of events which enable you to develop and operate in a professional manner while allowing you to discuss and exchange views and ideas with colleagues from other institutions, and I use that word advisedly! It is a very valuable organisation for us all, over the years some of its members have gone on to hold key positions both within colleges and other organisations and so it is important that we keep ALAM in good health by using our persuasive techniques, which I won't specify, to recruit new members whenever the opportunity arises. Becoming a member of the committee is a good way to help to strengthen the organisation and put back in some of the benefits you have experienced as a member, while allowing you to join a team of friendly enthusiastic and like-minded people who are trying to spice up our staff development! Keep working on the bean counters to allow you to attend.

Can I therefore sincerely thank our secretary for keeping all the papers straight... .no mean feat when I'm involved, the treasurer for his sterling work in keeping us solvent and ship shape, and the committee members for their hard work and good humour over what has possibly been a slightly unorthodox year' s proceedings.

I wish Graham well for his forthcoming Chairmanship and hope that he doesn't find too many loose nuts and bolts left under the bench from the previous "technician"!

John Gough.

THE ASSOCIATION OF LECTURERS IN AGRICULTURAL MACHINERY

Income and Expenditure - Year Ending 31st March 2004

	2002-2003	2003-2004
	Income	Expenditure
Subscriptions	1107.00	1117.00
Committee Expenses	521.88	473.55
Newsletter	25.19	172.60
Courses		
Spring		0.00
Summer		320.00
Winter		0.00
Conference		2033.46
Interest	19.04	22.45
Miscellaneous	25.00	577.50
Surplus/Deficit	71.11	460.00
	532.86	1702.34
TOTAL	1151.04	4841.95

Statement of Affairs as of 31st March 2004

Bank Account as on 1 April 2003	3028.25		
Building Society as on 1 April 2003	1310.71	Bank Account as on 31 March 2004	4746.44
Plus uncleared incoming cheques	14.00	Building Society as on 31 March 2004	1315.26
Less uncashed outgoing cheques	1702.34	Plus uncleared incoming cheques	31/3/04
Plus Surplus		Less uncashed outgoing cheques	31/3/04
	1702.34		34.40
	6027.30		6027.30

In my opinion the above is a true and fair view of the financial state of the
Association of Lecturers in Agricultural Machinery for the year ending 31st March 2004

Signed
Treasurer

Signed

Signed

Land Rover Proving Ground, Gaydon.

Vehicle Operations Centre Visit

Introduced by Mike Dean, General Manager.

Gaydon is located in the heart of the Warwickshire countryside. The test area and main workshops occupy an old RAF Airfield, purchased by Rover in 1950, and up to 3000 people are employed in the complex. The main runway is used for speed testing and endurance testing. Off-road testing takes place adjacent to the runway. The main buildings are used jointly by Ford Motor Company, Aston Martin, Jaguar and Rover, with the hangars being used by the motor manufacturers and special vehicle manufacturers.

Landover Vehicle operations are housed in a purpose built 40-bay workshop, 16 of which have ramp facilities, with one pit area. Up to 150 vehicles pass through these bays every week, which is served by 56 multi-skilled technicians, their main objectives are:

- Launch Vehicle Operations
- Royal Household vehicles
- Press and Marketing Fleet
- Vehicle Conversions for Expeditions
- To provide Photographic Vehicles for advertising and Sales Brochures
- Motor Show Preparation
- External Events
- Chauffeur Services
- Fleet Managers Vehicles

The Events Team can set up anywhere in the world; for example the launch of the New Discovery 3 which takes place in Europe on 26th August 2004, Asia and the Pacific using a total of 180 vehicles. 70 vehicles will be in Stockholm over a 35-day period. Each day VIPs arrive, are greeted at the airport by the fleet of 70 vehicles, they are whisked away for the day for off road and test driving, wined and dined and sent on their way. Meantime the vehicles are prepared for the next 70 guests. Apparently there is no shortage of volunteers for the team as the financial rewards are high.

An interesting vehicle in the workshop was H.R.H. Prince Charles' late-model Range Rover Classic in for repairs and a service. He apparently cannot be persuaded to take a new model F.O.C.

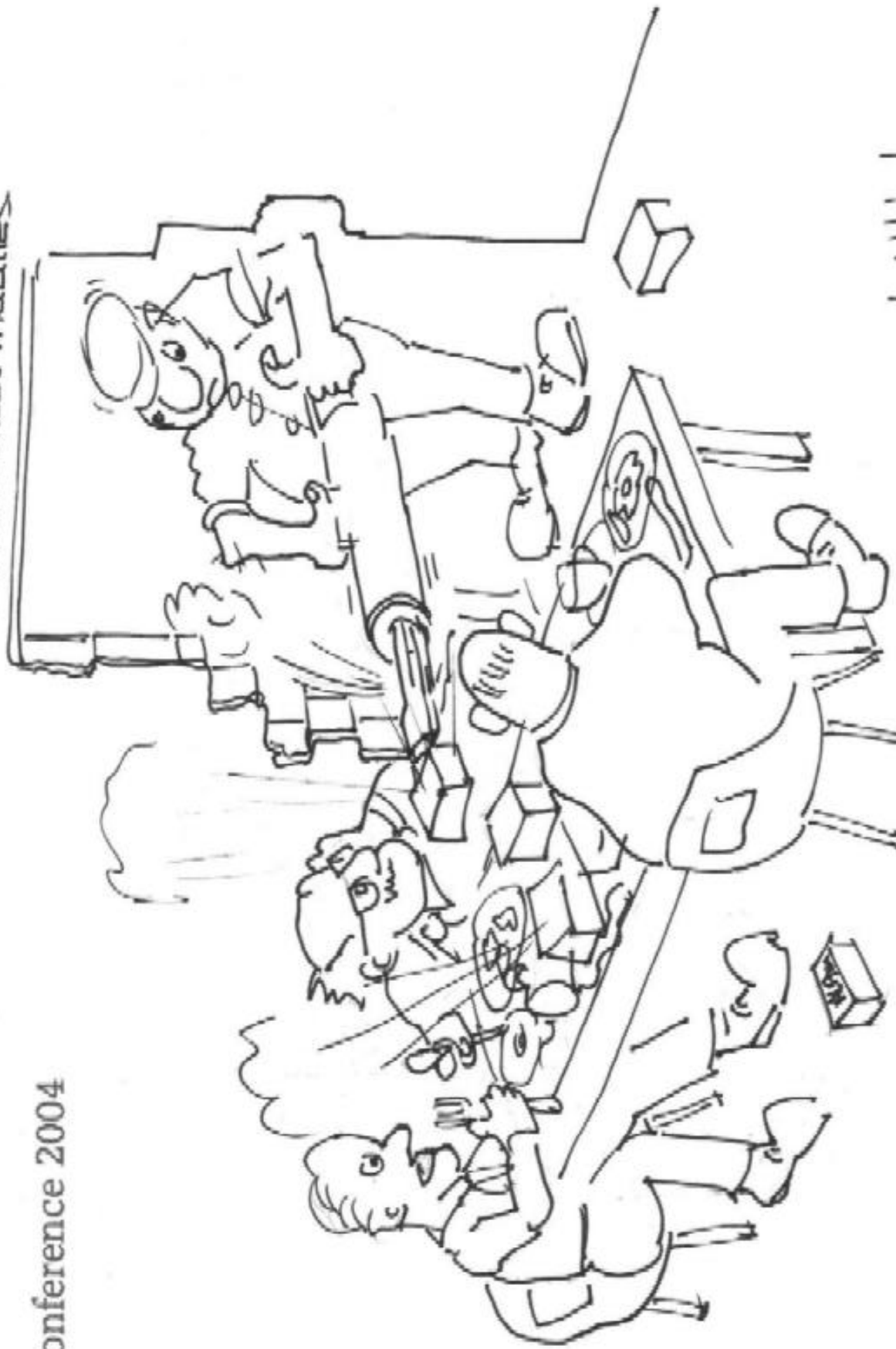
Expeditionary vehicles are fitted out to Land Rover's specification with the help of the comprehensive stores containing many parts. Unobtainable parts are drawn straight from the production line.

With a tight schedule we were then whisked away to our next venue, which was the Engine Testing Department

Ian Whitehead

A.L.A.M. Conference 2004

MARION MAREL CANTEN FACILITIES



can't understand

I could be wrong Brian but I swear they are trying to get rid of us

Claas Jaguar

Report of Claas Forager Seminar

Held at Saxham on Tuesday 26th & Wednesday 27th October 2004.

This training course was organised by Duncan Wilson and Brian Kessell of Duchy College Cornwall who arranged the course through Mr. John Palmer, the Training Manager of the Claas Academy. Our instructor for the two days was the very capable Mr. Mark Germaine who patiently led us through the complexities of the electrical and hydraulic systems found on the self propelled machines.

The Jaguar self propelled machine formed the basis of what we were to cover for most of the course but there was also the opportunity to look briefly at the Lexion combine.

Starting with the Jaguar we were given a range of interesting facts and information which brought us up to date with technical specification changes and options available on these machines some of which are listed below.

Claas offer two makes of engine,

- Caterpillar, their engine design uses a high volume recirculatory fuel flow system to feed the unit injectors and about 70% of that flow is used for cooling purposes so the fuel is then fed through a cooler. One consequence of this is that the fuel filters have to work harder and sometimes need to be replaced before the usual service interval.
- Mercedes, fuel is used to cool the engine electronic control units only. The engine ECU electronics use PLD signal system used by Mercedes and an adaptor module is fitted to enable the machine ECU's to send and receive the necessary control signals and information from the rest of the machine.



The LA engines are turbocharged and intercooled. The fuel consumption of these machines in work is 60 to 70 litres per hour. Fuel is filtered through 15, 10 and 2 micron filters on these engines.

To achieve 40kph the transmission hydro unit is run in the full speed position and engine rpm is increased beyond normal full throttle position.

The hydrostat units used by Claas are sourced from two suppliers Sauer and Linde

Should the machine need to be towed the gear box needs to be put into neutral.

Linde use some slightly different terms when referring to pump / motor operation, charge pressure equates to boost pressure. 14 litres per minute of the hydro motor oil goes to the oil cooler. When the hydro drive is in neutral the system pressure is 30 bar and when in drive this increases to 300 bar.



Cutting cylinder blade layout is in a V formation with 20 or 24 blades fitted, the cylinder speed is 1200rpm. For grass half of the blades are removed. There are different knife and shear bar profiles for different crops. The knife to shear bar clearance is set at 0.05 mm, when resetting knives or fitting new, the shear bar should be set up by measuring from cylinder shaft bearing housing flange to the shear bar on both sides of the cylinder to get the shear bar parallel. A measurement of 290mm



was given for this as a guide.

Metal detector operation is linked to a special Waltersshield clutch unit designed to operate at 1900 NM.

These machines have a fairly comprehensive hydraulic system which was controlled by valve blocks made of cast iron which were produced by Claas. There has been a move over from this policy and the new valves are in monobloc aluminium assemblies. Proportional solenoid valves which are spring loaded are identifiable by an F stamped on the ends. Many valves now used are of the cartridge type and some are only identifiable by the number of annular rings machined on the cartridge body, so care and observation during the dismantling process may prevent damage and dismay after reassembly!



We were taken through the circuit diagrams for both the electrical system and the hydraulic systems of these machines and carried out some hands on testing of circuits in the workshops together with sharpening a cylinder and resetting the shear bar. It was an unnerving experience standing by the machine with the cylinder running, listening to the tic, tic, tic as the knives touch the shear bar, before the electric motors wind the adjusters back a small amount to achieve the correct clearance.

Combines

Sales of straw walker machines are still holding over 90% of the market in the UK

Xerion

There was also the opportunity to examine and drive the Xerion which was taken up by most of those present; visibility was good apart from immediately behind the rear of the machine which would require technology or an assistant to see you back to hitch up implements. This model had the mid mounted cab. The transmission control would require a little practise in order to achieve smooth drive but brakes and steering still gave you the feeling that you had it under some control. Five minutes on the seat, however is hardly sufficient to pass any judgment on the real capability of the beast.



The two days spent at the academy made most of us realise how much there was to know about these modern machines in order to be able to properly troubleshoot faults and carry out thorough repairs in an efficient and effective manner. It was a privilege to have been led through both the electrical and hydraulic systems of these machines in such a thorough manner, the challenge now will be to remember it all!

Our thanks to Mr. Mark Germaine whose job it was to educate us, Mr. John Palmer for organising the Claas Academy course and Claas UK for hosting the event for ALAM.

J. Gough.

Members 2004-05

Up-to-date on 20th December 2004

Name	Member Number	Workplace or Mailing address	Name	Member Number	Workplace or Mailing address
Gerald Anderson	04/099	Easton College	David Howells	04/002	Warwickshire College
Bruce Badger	04/079	Sparsholt College	Colin Hughes	04/069	Welsh College of Horticulture
Tim Ball	04/101	Reaseheath College	Phillip Hurrell	04/071	Reaseheath College
Martin Baxter	04/097	Bishop Burton College	David James	04/106	Coleg Meirion Dwyfor
Nick Bevan	04/008	Sparsholt College	Melvin Johnson	04/022	Reaseheath College
Robin Blackford	04/098	Hayter Ltd	Alexander Johnston	04/023	Reaseheath College
Clive Bound	04/012	De Montfort University	Cledwyn Jones	04/105	Coleg Powys
Michele Brown	04/095	Home	John Jones	04/059	Home
John Bumby	04/HON	Home	Chris Keeble	04/068	Home
Brian Cairns	04/100	Writtle College	David Lankester	04/041	Writtle College
Denis Cartmel	04/058	Home	Rob Lee	04/091	Reaseheath College
Harry Catling	04/063	Royal Agricultural College	Nigel Macpherson	04/075	Sparsholt College
Stuart Christie	04/005	Cannington College	Patrick McLeod	04/033	Hartpury College
Richard Clarke	04/082	Otley College	Les Milne	04/007	Writtle College
Peter Cockrell	04/029	Home	Chris Morgan	04/016	Walford College
Keith Coldwell	04/072	Home	Tym Morgan	04/037	Warwickshire College
Ian Coleman	04/009	Hereford College of Technology	Richard Newman	04/043	Home
Peter Coleman	04/046	Home	Brian Nicholls	04/034	Reaseheath College
Miles Couchman	04/004	Home	Tim Northmore	04/011	Kingston Maurward College
Stewart Cousins	04/010	Home	Rhys Owen	04/112	Glynliffon
Bob Creasey	04/036	South Kent College of Technology	Simon Parker	04/055	Reaseheath College
Chris Creasy	04/053	Home	Robert Patmore	04/060	Home
Kevin Davenport	04/057	Myerscough College	Evelyn Pearce	04/027	Rycotewood College
Alan Davey	04/040	Cannington College	Michael Percival	04/081	Home
John Dixon	04/064	Lackham College	Clive Perrins	04/054	Writtle College
Neal Dodd	04/024	Coleg Powys	Brian Poulson	04/086	Home
Oliver Dunthorne	04/102	Home	Robert Rattray	04/052	Home
Paul Durant	04/090	Home	Tony Roberts	04/019	Home
Peter Eland	04/074	Llysfasi College	Ryan Roberts	04/104	Home
Duncan Elliott	04/047	Duchy College	David Ross	04/073	Newton Rigg College
Sandy Ellis	04/092	Askham Bryan College	Jonty Rostron	04/083	Home
Colin England	04/042	Kingston Maurward College	James Sanders	04/003	Hadlow College of Agriculture
Frank Facey	04/051	Cannington College	Jon Sarsfield	04/096	Home
Alan Fagg	04/067	Evesham College	David Scotchmer	04/049	Hartpury College
Lionel Foreman	04/078	Rycotewood College	Michael Sidlow	04/032	Lackham College
Nigel Fox	04/093	Sparsholt College	Andrew Soar	04/056	Home
Andrew Frank	04/017	Reaseheath College	R J Soper	04/113	Home
John Gough	04/031	Rodbaston College	David Sparks	04/006	Home
Julian Greenman	04/035	Sparsholt College	David Stephenson	04/048	Rycotewood College
Richard Gregory	04/077	Sparsholt College	Rick Sunderland	04/038	Bishop Burton College
Steve Hackett	04/045	Writtle College	Paul Talling	04/013	Askham Bryan College
David Harris	04/050	Brinsbury College	Ian Taylor	04/026	Barony College
Paul Harrison	04/087	Otley College	Alastair Taylor	04/014	Home
Steve Hasell	04/039	Cannington College	Emlyn Thomas	04/065	Home
Richard Heath	04/015	Lackham College	Roger Tiller	04/084	Sparsholt College
William Helen	04/020	Sparsholt College	Martin Towsey	04/021	Brackenhurst College
David Heminsley	04/107	JCB Training	Mark Tyson	04/030	Home
David Henley	04/061	Kingston Maurward College	Peter Walley	04/085	Warwickshire College
Graham Higginson	04/094	Walford College	Steve Warr	04/044	Writtle College
Paul Hill	04/025	Writtle College	Richard Waterson	04/080	Home
Vic Hird	04/076	Brackenhurst College	Stephen Watson	04/070	De Montfort University
Peter Homer	04/066	Home	John Welwood	04/028	Home
James Horrell	04/108	Duchy College	J A White	04/114	Home
Tony Houghton	04/088	Myerscough College	Gareth Williams	04/111	Coleg Meirion Dwyfor
Kelvin Howard	04/103	Rodbaston College	David Wilson	04/018	Home
			Peter Woodliffe	04/062	Home
			Paul Wray	04/001	Home