

# AS 9100 QUALITY

## INSIDE THIS ISSUE:

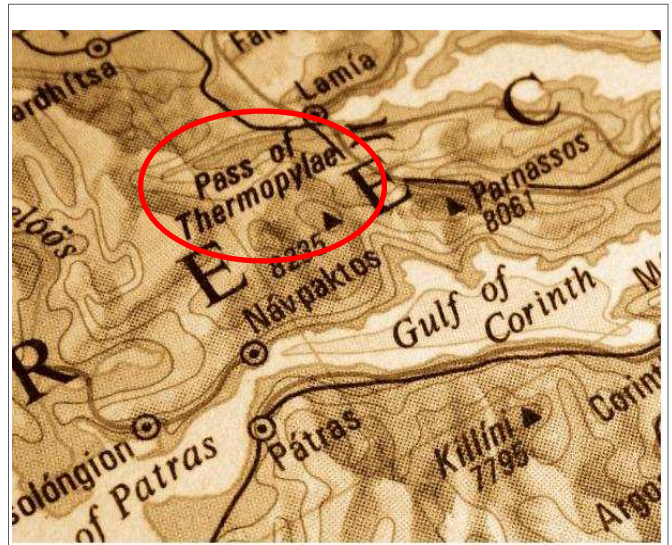
<i>Training</i>	2
<i>CAM at Machines</i>	2
<i>Tooling Sheets</i>	2
<i>Industry Updates</i>	3
<i>Alarming News</i>	3
<i>April 1<sup>st</sup> News</i>	3
<i>General News</i>	3
<i>Personnel News</i>	4
<i>Health and Safety</i>	4
<i>The Last Word</i>	4

## Special points of interest:

- Machinery Updates
- Health and Safety

## 300 COMING TO A CINEMA NEAR YOU.

The mountain pass at Thermopylae lies between the cliffs of Mount Oeta and the Malian Sea. It was a thoroughfare between the ancient Greek regions of Thessaly and Locris, and as a natural defensive position was the scene of many notable battles. Most famously, a small elite force under the Spartan king Leonidas held out here for two days against a vastly larger army of advancing Persians in 480 BC. The Persian army numbered somewhere between one and five million men. The Spartans obviously didn't understand the meaning of fear. They certainly didn't understand the meaning of a million! Conservatively they were outnumbered 3333 to 1 and they still held out for two days to allow reinforcements to mobilise. Two and a half thousand years later things haven't changed and the lessons remain the same, that skill and determination are more important than size and numbers. [NB Porsche



Thermopylae [Hot Gates]

recently launched a David and Goliath takeover bid for Volkswagen]. It's also the same lesson for British industry. We can deal with competition from the East. To do so we must improve job performance and every job in every factory is capable of improvement. The good news for Castle is that a comparison of the first quarter of the financial year and the second

quarter shows a 4% improvement in job performance. Whilst some of this may be down to batch size or product mix this is prima facie evidence of job improvement and everyone currently involved in achieving this is to be congratulated. An important point is that process improvement is a journey, not a destination and we must get more people contributing.

## MACHINERY UPDATED.

On the 11th of January the company took delivery of its fifth SL603. After bending the first lifting beam, & fighting gale force winds they finally managed to install the machine a week later. This machine was joined by our first SL403 in March which completes the lathes in the 257 building. Then in July we

will take delivery of a Axe Vertical Turning Lathe which will be located next to the Makino 1210. Also to repair our older machines which have had reliability problems the OM VTL will be retro-fitted with a Fanuc 18i-TB control in February and the Mandelli will be retro-fitted with a Fanuc 16i-MB control.



MV1200 a coming Massa

Currently we have twenty three apprentices which is a big training commitment. The company continuously works to improve the quality of training given to employees but sometimes with mixed results. Towards the end of last year the quality department allocated almost all of Bob Mowbray's time to training. The results have been very positive as Bob has a lifetimes experience of CMMs. The next stage of the plan is for Bob to start training shop floor operatives to use the CMMs to measure their own components which have already been programmed by the quality department. It is now apparent that having personnel dedicated only to training has major benefits.

A photograph of a young man with short brown hair and a beard, wearing a blue work shirt with a name tag that says 'Craig'. He is standing in front of a large, dark industrial machine. To his right, there is a white paper pinned to the machine and a small informational card. The background is a plain wall.

Craig Smith (1st Year Apprentice)

In the first eight months of

As the production system develops and more and more features become available on the factory floor it is becoming more difficult for operatives to keep abreast of the system. To help matters it has been decided that Douglas will show Damian all new features and Damien will supply training directly to operatives. *BUT if there is anything on the shop floor system that you do not understand please ask Damian or Andrea and training will be provided.*

As from this January it is now possible to replay a video of the cutter paths at every CNC machine. This allows setters to view the virtual cutting of the component prior to actual machining of potentially expensive materials. This is another innovation that was entirely conceived and executed in the projects office. With over one hundred years of experience between them it's no wonder

*“W. G. Grace was the most famous cricketer of the Victorian era. Grace played for 43 years during which time he scored a total of 54,896 runs.”*

Tooling sheets can now be generated automatically by our CAM package CAMWorks complete with all technical data and a graphical representation. The application works equally well for turning as well as milling. We hope to go live with this incorporated into the production control system by end of April but we will require feedback from the shop floor to iron out the bugs.

Five axis software is an area

[illegible]

## INDUSTRY UPDATES

We are now part of the SBAC [Society of British Aerospace Companies] and we are investigating their new initiative SC21 [Supply Chain 21st Century]. We are not completely happy with some aspects of this initiative as unsurprisingly it is very much the customers perspective with some input from first tier primes. The concept of good ideas coming up from the shop floor, or in this case second tier suppliers may not have been applied. The result is some lack of balance in the proposals which we are trying to remedy. We will be hosting the December 2007 SC21 task force meet-

ing. Apart from taking part in the debate this may also present us with opportunities to showcase our manufacturing prowess.

Another organisation making great strides is the MTA [Manufacturing Technology Association] who's annual dinner I attended this year. Under the influence of it's President and Vice President they have transformed this organisation and are sending a very relevant message to government about industries needs. Whether or not the government is capable of listening is another matter but the message is worth supporting.

## ALARMING NEWS

The theory of devolution isn't about politics but reverse Darwinism. Near the bottom of the evolutionary tree are small furry animals. Just below that you can find lawyers. Dig a little deeper and you will come across insurance companies. But right at the bottom of the burrow, if you know where to look, are alarm companies. When our alarm failed to function properly after a power interruption we requested a fix. The alarm company has offered to fix the problem for a small fortune. Who do these guys think they are? A Computer software company?

## ARPIL NEWS

Mori Seiki have just launched a stacking system that allows one Lathe to be located above another. This means that two lathes only take up the floor space of one. This makes multi-manning much easier and one set of probes can be used to service two machines. Because of the extra floor loading new heavier duty foundations are required, and in our case some

of the factory roofs will have to be raised locally. These duplex designs also require cranes which can service two heights simultaneously. The most elegant solution is the sliding beam system which allows full access to the lower chuck. The manning of machines is only possible through the use of a crane mounted platform but safety is assured through the use of elasticised harnesses not to

dissimilar to a baby bouncer. Wearing of the harness is mandatory.



The system shown here is the full vertical six pallet stacked lathe system.

*"Who do these guys think they are? A computer software company?"*

## GENERAL NEWS

In addition to the new Massa MV1200 VTL and the new Mori Seiki SL603 and Mori Seiki SL403 lathes and the retro fits mentioned on page one the company is considering retrofitting its MH63 horizontal machining centre and has recently ordered a brand new Citizen K16-V11 7 axis CNC Sliding Headstock lathe. Fitted with live tooling, front and back working, and lemca Genius automatic bar feed this machine significantly enhances our very

small components capability. The machine is due for delivery May 2007.

Installation of cameras to track tool movement using 2D bar codes has started with most of the machining centres now able to read tools. The next stage is man held camera reading at the CNC lathes. This project will take a couple of years to get to fruition.

Our current website is somewhat antiquated. As our computing resources are fully allocated and also because it is a specialist area we are getting our new web site developed by a company by the name of Pyramid. Some pages are now partially done and can be viewed now if you have the right codes. The remit for the site is to present Castle to a wider audience and to give a virtual tour close to the real thing



## PERSONNEL NEWS

A warm welcome back to CarolAnn who has returned from maternity leave.



Nikki Hutton has now moved from the front office into Quality where she is making a big impact as well as enjoying herself.

Welcome to Laura Gibson (no relation to Mel) as the new PA to the MD. Laura started straight after getting married and now as they say the honey-moons over. Productivity in the MD's office



Working with the MD. Someone's got to do it!

has never been higher!

The MD sometimes arrives by 10am!

There are nine new apprentices to welcome since the last newsletter. In no particular order; Ryan Drennan; Marc Fullerton; Graeme Martin; Gary



Ryan Drennan



Gary Nicholls

Nicholls; Brian Mackintosh; Dale Perry; Craig Smith; Ronald Kerr and Gary Stewart. All the reports from college for this latest group are satisfactory.



Gary Nicholls

Paul Vandy started in the tool room last year.



Paul Vandy

We have two new skilled setters Brian McDonald and Philip Turner who actually is a turner.

Gary Taylor started as a semi-skilled.

In the materials department Robert O'Neill started as a packer.

In Quality Adam Bryson started in February of this year as an inspector. Prior to working at Castle Adam worked at Cummins Engines, and more recently at Alexander Buses in Falkirk.



Adam Bryson



## HEALTH AND SAFETY

[A FERRI]

As part of my job as Health & Safety Officer I undertake Audits regarding Personal Protective Equipment and, although the majority of you comply there are some who let their side down. Our main problem seems to be with the wearing of Safety Glasses. After weekly audits held in March, the above League Table shows the positions of the sections in connection with non-wearers of Safety Glasses.

All sections should be 1<sup>st</sup> equal but there are those within the sections and, worse management/staff, who still do not

comply with wearing Safety Glasses. Anyone who requires prescription safety glasses should now be aware that these can be requested via their Foreman. Also we do have over glasses for those who wear spectacles. There is no excuse for not wearing the required protective clothing and, although I have pointed out to some of you direct that you are not complying the response has been little more than a shrug or total dismissal. I do not point out the lack of PPE worn by personnel for my own satisfaction I point it

out because you could be seriously injured through lack of care. I have been given the authority by Marcus to point out areas of Health and Safety which are being ignored and I would now appreciate the courtesy of my observations being acknowledge and improved upon. On another note, with regard to any health and safety issues you have within your section I would be grateful if you could advise your foreman who will then bring it to my attention at which point it will be actioned accordingly and reported back

		No. of Non-
Ran k	Foreman/Section	Wearers Spotted
1=	Gary Lisco	0
1=	Willie Greenwood	0
1=	Barrie McLean/Purchasing	0
4	Jim Finlay	3
5	Barry Sagar	4
6	John Galletly/Inspection	5
7	Allan Perry/Stephen Clucas	10
8	Dave Wise	13
9	Gerry Ruddy	17
10	Staff in and out of Factory	32

## THE LAST WORD

Dated 11<sup>th</sup> November 2006 from Robert Livingstone of Selex "pass on my thanks, on behalf of the Project, to Castle Precision Engineering, who only received the order on Friday 10<sup>th</sup> at 10:00 and managed to deliver to you this morning at 8:30"

We had a visit from a delegation from Mactaggart Scott. As a company which manufactures periscopes for 43 different navies around the world, they are very interested in how we control our

manufacturing process. A return visit to their facility near Edinburgh showed the scale of manufacture and the stupendous size of a modern periscope.

Earlier last month the French sent reinforcements as called for by the "Auld Alliance". Eighteen young French apprentices and their Tutor came for a factory tour. Three of them actually asked if they could complete their apprenticeship at Castle. Unfortunately, the only per-

son who could communicate with them was Raymonde Tiefenbrun to whom they seemed particularly attentive. Their tutor Henri Lao sent the following:-" our students were very impressed by your factory and your man-



Say Camembert