

AS 9100 QUALITY

FARNBOROUGH AIR SHOW

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During July, Castle attended the bi-annual Farnborough International Airshow. The FIA which has been running since 1948 is the jewel in the aerospace world calendar, attended by everyone from true end customer to the forger's right at the beginning of the supply chain process. Whilst major players jostle to have the biggest stand and most news coverage, the show provides SME's like ourselves an excellent opportunity to network with both domestic and international customers. ADS organised events such as "meet the buyer" are a prime example.

Capacity, Machinery Magazine, The Engineer and various other sources.

As well as receiving our SC21 award at

change and the Castle culture that embraces change.

In his own speech to the workforce, Managing Director Marcus Tiefenbrun reflected in both the importance of this



*Castle Flying High At Farnborough Air Show
Image provided by John Muller*



As well as conducting business, there also happened to be an air show in town. Distinguished guests this year included the new A400M Military Transporter, the Airbus A380, the Lockheed Martin F22 Raptor and the new Boeing 787 Dreamliner. Whilst being a fantastic spectacle, the SC21 Award ceremony held in the ADS Hampson chalet was FWAAAAWWRRRRR – interrupted. Carefully crafted and prepared speeches for all involved quickly became pointless as FWAAAAWWRRRRR entirely different meanings. Despite this, Castle's receipt of the SC21 Bronze Award at Farnborough went down very well, with press coverage in SMAS, Scottish Engineering, Scottish Enterprise, Engineering

Farnborough, the Company also organised a second award ceremony back at Castle for the entire workforce. The formal proceedings were also attended by Peter Lawrie of Selex Galileo, Robert Cowan of SMAS and Ian Watson of ADS Scotland. Both Mr Lawrie and Mr Cowan who had been instrumental in Castle's rapid ascent towards Bronze addressed the workforce. In their speeches they recognised among other things the strong relationship between Castle and Selex Galileo, the sophistication and adaptability of our bespoke production control systems, the speed at which the Company implements

award and the hosting of the official handover ceremony at Castle saying, "I would like to thank everyone in Castle for their contribution to this success. Lean is a lot like line dancing; you can't do it by yourself!". The MD also furthered his commitment to the SC21 programme by stating his intent for Castle to achieve the Gold within two years.

There can be no doubt that this is a highly ambitious target for any company, that can only be achieved with full commitment of an entire organisation. The Company is already in the process of running a gap analysis between our current status and achievement of the silver award which should allow us to move forward quickly.



*SC21 Award Ceremony at Castle
Left to Right: Peter Lawrie, Marcus Tiefenbrun, Robert Cowan*

NEW MACHINE TOOLS

To deal with increasing demands in the Toolroom and grinding sections, the Company has placed orders for two new machine tools. The Toolroom will be receiving a new Mori Seiki NL2500 1250 which is the successor machine to the SL150Y's they currently have. Unlike the 150's however, the machine will have a 3.1 inch bar feeder and features a direct drive motor for the c-axis rather than the gear engagement design. The advantage of this will be the reduced maintenance requirement as well as the elimination of backlash allowing the machine to have a splinning capability. The new NL will also feature the latest MAPPS 4 Control. The control as well as being an interface, is a conversational tool for quick online programming similar to those that can

already be found on the Duraturn and Duravertical.

The delivery of this machine will mark the 8th machine tool to be taken from Mori in the last 2 years alone and as an affirmation of the Castle-Mori partnership, Castle Precision has been invited to sit on the newly formed Mori-Seiki UK Customer Advisory Council. The council has been created to understand the viewpoint and requirements of their key customers and partners in areas such as products, services, pricing, performance and market direction.

The Company has also ordered a new Studer S40 grinder. The new grinder is being brought in to satisfy increased customer demands for shaft manufacture as well as

providing contingency for our other cylindrical grinder. The machine will be capable of grinding 1.6m between centres and able to achieve accuracies in the region of 2 tenths of a micron.

Both machines should arrive before Christmas – wrapping paper and bows are apparently an optional extra.



“Castle Precision has been invited to sit on the newly formed Mori-Seiki UK Customer Advisory Council”

NEW OPTICAL MEASUREMENT

The Company has taken delivery of a new optical measurement system. The system is a 21st century version of a shadowgraph; it still uses manual control and a precision variable zoom lens (between 30x and 200x) but instead of projecting the image onto a shadowgraph screen, the image is fed into a computer. This is where things get 21st century. The system then uses an auto recognition feature and compares the actual features to a CAD drawing stored in the computer. The advantage of this type of system is the ability to measure one off's quickly without having a programme and the ability to measure features such as

radii with high degrees of resolution. The problem with measuring a radius with a touch trigger probe is that the ruby on the end of the probe can be bigger than the radius it is measuring. Even if the ruby is smaller, the measurements tend to be unreliable and inaccurate due to the low resolution (few touches). An optical system on the other hand can zoom in on a given feature and take as many measurements as you define, providing a better average. The system is highly suited to vacuum table work where the work is small and flat and one off's where quick and accurate measurement is required without drawing

on Quality Engineering programming resource. The machine will be capable of measuring parts 300x300x165 and able to achieve accuracies to $2+L/100$ (which means for a part 100mm long, a measurement tolerance of 3 microns).

“a 21st century version of a shadowgraph”



AWARDS AMBITIONS



With our recent successes with SC21 and the Scottish Engineering Awards, the Company has chosen to enter for other industry recognised awards and accolades. The Manufacturer of the Year Awards are some of the foremost and respected in industry and the company has entered into two categories where we felt we could have the biggest impact - SME of the Year and IT in Manufacturing. Since applying for the awards back in September,

the Company has been shortlisted for both categories. The next step will be a short presentation to the judges, followed by a question and answer session at the Williams F1 site in Oxford.

There is a point to all this. Castle is forging to be the foremost precision machining subcontractor in the UK. In some areas, such as IT, we already believe ourselves to be there and have been for some time. But the fact is, nobody else

knows. To be the foremost by definition requires prominence. If we are to meet our aim to lead the way, then we must also be recognised as such.

From 2011, the Company will be setting a target to win 2 awards a year, from respected bodies such as: Scottish Engineering, The Manufacturer, The MTA, Factory of the Year Awards, The Strategic Manufacturing Awards, SME 300, IMechE and various others. Expect a trophy cabinet soon!

“The Manufacturer of The Year Awards are some of the foremost and respected in industry”

IMECHE APPROVED STATUS

IMechE has awarded Castle the approved status for its Engineering Technician Development Scheme. This award was achieved after a thorough examination of how we deliver the Modern Apprenticeship Programme. Apart from the advantages to the



Company in terms of recognition and networking opportunities, there are a

number of specific benefits to Castle’s engineers including professional post nominal designation, discount rates for events and seminars, access to journals and technical papers. For more information please see William Greenwood.

*IMechE
The Institution of
Mechanical
Engineers*

NO MORE ETCHING

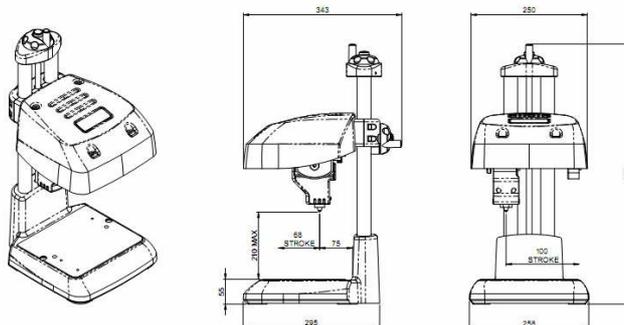
For those of you who have worked on the spacer rings, experience is that the vibro part marking on this component is awkward to say the least. The narrowness of the marking faces as well as the obstruction of the seals make it very difficult. The problem came to a head when dimensionally correct components were stopped at our customer’s inspection due to legibility issues. Since then, the Company has investigated several marking solutions in order to implement a permanent fix.

from Pryor Marking early October. The new system is a dot peening machine with the added capability of being able to produce 2D dot matrix, similar to those we use on the tools. The system will be primarily focused on the Spacer Contract early

doors with the dot matrix capability also being applied to a part we currently have to subcontract. In future all Rolls-Royce finished parts will require 2D matrix style marking.



*Test Piece
Spelling kindly provided by Pryor*



The Company will be introducing a new system

GERARD RUDDY

After 31 years of dedicated service, Gerard Ruddy has retired. Gerry came to the Company in 1979 from Kincaid Greenock as a CNC turner. At the time he was employed by Jack Y Tiefenbrun (Company Founder) to support the Companies increasing involvement in CNC machine tools. Gerry was soon made a leading hand and recognised as one of the best CNC turners in the Company, in fact he was so good that he had the

Magnum PI moustache to go with it. In 1991 Gerry became the section Foreman and for 19 years ran the largest section in the Company. In recognition of his services to Castle, Marcus Tiefenbrun presented Gerry with a Longines watch and a bottle of Macallan whiskey.

We wish him all the best.



“After 31 years of dedicated service, Gerard Ruddy will be retiring.”

THESE BOYS DON'T PLAY FAIR

For the last year Castle has been involved in Rolls-Royce's Supplier Development Programme. The programme is for a selected few, Rolls-Royce's 40 or so most important suppliers worldwide. Through the course of the programme companies on the JTPE (journey towards process excellence) visit one another to demonstrate and share best practice. The programme at its core is about making the supply chain more effective and efficient by reducing set-up, run and lead times but also through knowledge sharing benefits areas such as training and management.

their “mildly competitive” natures, they completely missed the point. The teams carry out a variety of role-play workshop exercises such as replicating a production line. This is designed to demonstrate Lean best practice. Our boys however decided to demonstrate some “win at all cost mentality” – which they did; in fact they broke all the records for the game and quite likely, all the rules too!



Castle is part of a group of 4 companies: Eaton Aerospace (Redditch Site), Leistriz (Nurnberg Site) and Unison Engines (Burnley Site). As well as visiting one another's sites, our Champion William Ballingall and Change Agent Jim Finlay attended a Lean Workshop down at Derby, where blinded by

Fortunately, some lessons were learnt and since then the Company has implemented various tools and metrics to improve and measure our progress. With the assistance of our SDL's (Supplier Development Leader's) Scott Rowlands and Chris Hayes, the Lathe Section carried out a SMED exercise (Single Minute

Exchange of Dies) to reduce set up times. SMED is exactly as the expanded abbreviation implies, where the forging and die forming industry managed to reduce set up times between different jobs from 30 minutes or so to under 10 minutes. The idea is that waste identified in these exercises is seen as an opportunity to improve.

Although the programme only has three months left to run this year, there are many similarities between this and the SC21 initiative. Both are: supply-chain development programmes, utilise lean tools and promote working partnerships in pursuit of excellence. Our commitment to both programmes only helps to further demonstrate our continuous improvement culture.

So regardless of the programme, or even programme involvement, Castle will continue to look to improve every aspect of its operations.

“The programme is for a selected few, Rolls-Royce's 40 or so most important suppliers worldwide”

PERSONNEL UPDATES

As well as the retirement of Gerry Ruddy, there has also been several moves and additions to the Company over the last six months.

In the place of Gerry, Alan Dempster has been promoted to section Foreman.



David Simpson has been confirmed as the new Quality Manager.

Yan Tiefenbrun was appointed to the Board of Directors.

Michael McGill has been promoted to Deputy Head of Projects.

The Company has also employed and welcomes:

Alan Kerr, who joined the sales team in June as Technical Sales Engineer.

Kevin Varley (Maintenance Engineer) and Colin McEwan (Electrician) who joined the Maintenance team in April & June respectively.

Andrew Kennedy who joined us in July as a CNC Grinder.

Kenneth McManus who joined the Quality department in August as an Inspector.

Hugh Ferry who joined us in August as Cleaner.

John Nicol, who joined the Projects office in September as a Project Engineer.

Neil Fox, who joined us this month as CNC Grinding Foreman.

SHORT NEWS

THE CLAW

The crane for our NT6600 machine has finally arrived. The crane capable of lifting 3 ½ tonnes at more than 4 meters is at the top end of the jib style crane spectrum before having to adopt a gantry layout. The crane features powered traverse on all axes. The NT6600 machine is capable of machining up to 6 tonnes; should a requirement for that capability arise, Castle would revisit to provide either a temporary or permanent solution based on job requirements.



6ft tall Gary Lisco under the new crane.

MTA MEMBERSHIP

The Company has taken up membership with the MTA. The association formally known as the Machine Tool Association has been refocused and renamed as the Manufacturing Technologies Association. The society has always been one of political significance as one of its key roles has been to change policy and promote manufacturing within government. The new president of the organisation is Simon Pollard, formally of Pollards UK, Mori Seiki Pollard and now Kyal Machine Tools.

GRADUATION

On the 14th of September, 7 of our now former apprentices were presented with their Modern Apprenticeship Certification comprising of their SVQ Level 2, SVQ Level 3 and HNC. The graduation ceremony was attended by 45 people including family and friends and the newly graduated men were presented with a personalised etched depth micrometer set.

During the proceedings, the Company recognised 9 others for outstanding HNC results (90% and over).

The past year has seen 30 of our apprentices complete the HNC exams with 28 A's and 2 B's.

Congratulations to Class of 2010.



“The past year has seen 30 of our apprentices complete the HNC exams with 28A's and 2 B's”



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