

Falcon News

Keeping you in touch with all things BRUSH

Issue 04 December 2010

Welcome to the Winter Edition of the 'Falcon News'



It is hard to believe that 2010 is drawing to a close. As usual at the end of each year, I find myself reflecting back on this past year in which we have faced many challenges. 2011 will not be without its difficulties but I am looking forward with anticipation and enthusiasm to the next year.

By the time you will be reading this, Christmas will only be a few weeks away. In this issue, I write with news about the BRUSH Family Open Day!

BRUSH Family Open Day

Sunday 3rd July 2011, is the date for your diaries, in what promises to be a great opportunity for you to show family and friends your place of work, win prizes and participate in family fun activities.

The BRUSH Management Team look forward to sharing this special occasion with you all, in what promises to be an interactive day of fun and excitement, proving a great day out for all the family. Entry will be free and the Falcon Works gates will open from 10 am – 4 pm.

How you can help and get involved...

To register your interest or for further details or want to become involved contact the organisers at familyopenday@brush.eu or by contacting the 'Falcon News' editorial team.

Merry Christmas and a Happy New Year

On behalf of the whole BRUSH Management Team, we would like to wish you and your families a very Merry Christmas, a prosperous, happy, healthy and successful 2011 and we look forward to our continued cooperation!

I hope you enjoy the issue.

Dave wins Regional Training Award



David Keightley (Test Methods/Maintenance Engineer) has walked away with the regional award for the East Midlands Area at an awards ceremony in Leicester in October.

Dave said "I am really pleased to be the East Midlands regional award winner. Once Dave Commons and I got there we could not believe the competition we were up against, I was the youngest there so to come away with an award was very pleasing".

The National Training Awards recognises the impact that excellent training, learning and

development has on achieving outstanding organisational and individual success and provides a benchmark for standards of excellence in training in the UK.

In today's highly competitive and ever-changing economic climate, training is more important than ever. The creation of a highly skilled workforce increases the performance and productivity and contributes to the UK as a whole, enhancing our reputation as a force to be reckoned with in the global economy – simply training reaps rewards!

Established in 1987, the National Training Awards (NTAs) are unique because they encompass all sectors, sizes of organisation, training provider and individuals, recognising all types.

What's Inside?

News and Announcements 02

BRUSH sponsors rider 02

Hazards of an engineer 02

Talkback 03

Trivia Quiz 03

Falcons top of the league 03

Apprentices reunion 04

BRUSH host a table 04

In Focus 05

Rob's new appointment 05

Switchgear reunion 05

Ljungstöm Turbine 06

BRUSH around the globe . . 07

Showing Off! 07

BRUSH sponsors college . . . 07

A BRUSH with the past! . . . 08

Award winning installation 09

Our man in India 10

Texas Medical Center 10

India weddings 11

Neil qualifies for Crufts 12

Puzzle Corner 12



Your news and announcements

Baby girl for Ian

Congratulations to Ian Hicks (Senior Designer) on the birth of his daughter Esmé Hicks. Esmé, was born on the 26th August 1 month early weighing 5lb 4oz. Mother (Nicola) & baby are happy and healthy.



Baby boy for Andrew

Congratulations to Andrew Gillespie on the birth of his son Leo Ashton. Leo was born on 27 August weighing 11lb 2oz. Mum (Tracey) and baby are both doing well.



Baby girl for Kerrie and Matt

Congratulations to Kerrie Healy and Matt Berry on the birth of their daughter Lacey Ann Berry. Lacey Ann was born on 1st November nearly 2 weeks late weighing in at 8lb 9oz. Kerrie said "She is certainly keeping us on our toes, she likes to sleep all day and stay awake all night, so both Matt and I are feeling very tired" congratulation to them both sounds like Lacey Ann is acting like a teenager already.



Baby boy for Jamie

Congratulations to Jamie Pedley on the birth of his son Sebastian Pedley. Sebastian was born on 3rd November weighing 6lb 10oz. Mum (Stephanie) and baby are both healthy and doing well.



BRUSH sponsors motorbike trials rider



Sam Gent (BRUSH Apprentice) has been riding a motorbike trials bike since he was eight years old and after about a year of riding on and off he entered a local event. Since then he has been riding more and more events in and around Leicestershire and before long Sam was out most weekends either practising or riding in competitions all over the UK. This has given Sam the encouragement and experience to ride in bigger events.

Sam said "Last year I was picked to ride for the East Midlands youth team, representing the region in St Ives, Cornwall. From here my confidence grew and now I have ridden selected British youth and adult championships, including a Scottish championship in Fort William this September. The sport of motorbike trials is all about riding over obstacles, putting your feet down as little as possible. Rocks, streams and big hills are the most common obstacles in a trials

course, with the course being split into sections in which you get scored points for footing. So the person with the least points at the end wins.

To ride trials at an expert level, special bikes are required which are geared low for power at low speeds, no seat to improve manoeuvrability, large suspension travel and low tyre pressures for maximum grip".

Despite motorbike trials being one of the cheaper, less recognised forms of motorsport. The costs soon mount up with maintaining the bike and the cost of travelling and entry cost. Sam said "I am very pleased and grateful to BRUSH for sponsoring the supply of tyres for the next 12 months, it will allow me to concentrate more on my riding and less about worrying about the cost involved as it is very hard to obtain any kind of sponsorship for the sport as it is small compared to other forms of motorsport".



When Patrick Henry, who works out of our Huston facility, woke up one morning, he could not prepare himself for what he was about to witness.

Patrick said "we were just heading down to the power plant in Puerto la Cruz, Venezuela, where we are starting up at the local refinery, and decided to stop for breakfast at a restaurant that we use most days, when we encountered the snake. The snake had been run over in the road. It was a good 12 feet long and my two hands would not have fitted around its midsection, so I guessed it was about

16" - 18" in circumference." To get an idea of size the road strip is approximately 4" wide (about 100mm). Patrick went onto say, "This is unbelievable... I believe it is the most dangerous thing I have encountered since working at BRUSH. It was worse than having to ride the mechanical bull with Chris Lewis at the Loughborough Fair last fall. Charlie Mallon and Derek King failed to mention things like this to me when interviewing me for this position. One of the most surprising things to me was that no one skinned it to make cowboy boots and belts out of it!"

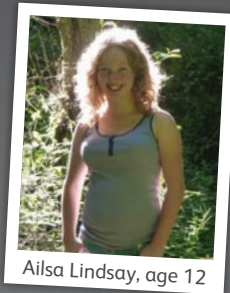
Hazards of being an Aftermarket Service Engineer

Talkback: Have your say

“ Welcome to issue four of our magazine. I would also like to extend a warm welcome to our new readers from Transformers and hope that you all get involved and send stories in? I hope you all enjoy this issue and will find something of interest. For the spring issue I would like to do a story on classic scooters or motorbikes if you have one or willing to put a few words together please contact me, also we would like to set up a display of them at the open day next year.



The summer holiday colouring competition was well received with well over 30 entries. The 3 winners were 0 – 4 Olivia Critchlow



Ailsa Lindsay, age 12

who's Dad Simon works in the Fabrication Shop. 5 – 10 year old Libby Elliott whose Grandmother Julie works in Material control and finally 11 – 16 year old Ailsa Lindsay who's Dad Hugh works in Insulation and Laboratories.

They each won £25 to put towards a family meal at a local restaurant.

This issues competition is based around Christmas. So take it home to your children and they could win a £25 meal voucher, but every entry will receive a prize.

The next issue will be out just before Easter, so let's have your news and stories from you. The deadline for articles is the 31 March 2011. If you have any ideas for stories or comments or something you want to get of your chest, email us on or speak to one of the team.

Merry Christmas
Derek Adams, Editor



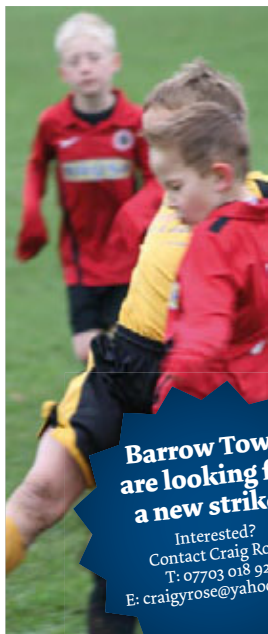
Tea Break Trivia Quiz

For fun only...

- 1 How many reindeer is Santa believed to have?
- 2 In which year was the Queen's speech televised for the first time?
- 3 Which Puritan leader made Christmas illegal in 1647?
- 4 In the "Twelve Days of Christmas" song what was given on the ninth day?
- 5 St Francis of Assisi is said to have created the first nativity performance in Italy in which year?
- 6 Who sent the first ever Christmas card?
- 7 Where does the word Yule come from?
- 8 The Christmas tree displayed in Trafalgar Square is a gift from which country?
- 9 Postmen in Victorian England were popularly called what?
- 10 What normally happens on Boxing Day and why is it given that name?

For answers go to the back page.

Barrow Town Falcons top of the league



Barrow Town are looking for a new striker

Interested?
Contact Craig Rose
T: 07703 018 921
E: craigrose@yahoo.co.uk

This game was a top of the table clash with Barrow leading the league by two points over Loughborough Dynamo and both teams wanted desperately to win this game. The starting line up for the Falcons was (Gk) Jack Noon, (Def) George Wiltshire, Jojo Evenden, Ed Ralphs-Nott, (Mid) Ethan O'Shea, Max Butters, Eoin Brockbank and Ben Marshall.

Both teams looked superb in possession and for such young boys the ball control and passing was something to be admired. The first real chance would fall to Barrow winger Max Butters who after beating two players hit a thunderbolt but was denied by a very athletic Dynamo keeper but Barrow did manage to opening the scoring with Ben Marshall beating two players and sprinted down the right wing where he unleashed an amazing diagonal shot with such power and precision that the Dynamo goalkeeper stood no chance at all, 1-0 to the Falcons.

To their credit Dynamo still pushed forward and were looking a danger down the right wing which

is where a perfect cross was drifted over and caught the Falcons on the back foot and was tapped home past a diving Noon in goal. This livened the game up even more and the parents and coaches could feel the tension and nerves were being tested especially when Dynamo went on the attack looking to gain the lead but a perfectly timed tackle by Evenden sent Wiltshire through the middle of the field. His vision sent a through pass to Marshall who went flying down the right flank and his cross was flicked high by a outstretched Dynamo foot which guided into the path of O'Shea who hit a sweet first time volley into the top corner to make it score 2 – 1.

The last 5 minutes were nerve racking with Dynamo pushing forward but the three man Falcons defence stayed strong and any loose balls that did manage to get through were quickly collected by a confident Noon in the Barrow goal.

Final score Barrow Town Falcons 2, Loughborough Dynamo Ambers 1 and Barrow stretch their lead at the top of the table to 5 points.

BRUSH apprentices reunion

This year in early May, some 14 or so ex-apprentices from BRUSH Electrical Engineering Company Ltd. met at a private venue for a reunion. This was a second event – the first being in 2001.

Most were ex-student apprentices in the 1950s with one Graduate apprentice from early 1960. All are now retired from their main career (and in some cases their 2nd and 3rd careers) but many are still pursuing current activities such as renovating classic cars or silver smithing (to professional standard). In the main, however, golf, walking, Sudoku and the like are common matters of great interest.

During that time as young employees, the BRUSH Apprentice Scheme was a vigorous entity, all apprentices spent their first 6 months at the Apprentice training centre - located where Sainsburys Super Market

is currently sited – learning the basic skills of mechanical fitting, electrical fitting and machining.

Moreover, Graduates from overseas Universities (from countries to which BRUSH exported products and where BRUSH had a satellite company) came to Loughborough to finalise their training before returning to their own countries to follow their chosen career. This provided a wealth of different views and perspectives as well as providing no little skill on the sports field. There were guys from Australia, New Zealand, South Africa, Rhodesia, Egypt, Pakistan, India, Sudan – one guy from Sudan was called Abdalla Dafa-allah el Tayeb Idris Ghorashi Ahmed Mohammed – it took some time to learn!

There was a Student and Graduate Association which not only played rugby and football, but entertained technical

talks and discussions at meetings given by senior BRUSH management (normally in the evening in a pub).

The BRUSH Company was a major player in the electrical industry and led the way in thyristor drives, engineered the control system for the Jodrell Bank radio telescope, produced the BRUSH-Ljungstrom steam turbine with contra-rotating shafts and produced a whole range of heavy electrical equipment such as transformers, switchgear, dc and ac motors and generators and diesel electric locomotives (the Falcon).

At the reunion there was one major common view – a belief that each and every one was lucky to have experienced and been blessed by the top class training and instruction of a world class company of the day.

BRUSH host a table at Leicestershires Cares



Leicestershire Cares has an incredible impact in the community over the last decade, and has grown into a successful charitable organisation which works to help some of the most vulnerable people in the city and county.

Each week, over 100 employees give their time and volunteer through Leicestershire Cares on a variety of projects, including working in schools, mentoring young people who have been in care, providing work placements for the homeless and ex-offenders.

BRUSH sponsored a table at their Annual Gala Dinner in October and 8 employees, who had shown outstanding contributions to the business, were invited to join Wayne Pearson and David Bryne at the black tie event for an all expenses paid evening of fun. Thanks to the generosity of every one who attended the dinner a total was raised on the night of £25,000 (£3,000 on the raffle!) giving a profit of around £13,000.

If you want to know any more about Leicestershire Cares, or how to get involved please contact either Monica Kimche at Leicestershire Cares on 0116 275 6493 or email Lisa Grant at lisa@leicestershirecares.co.uk

In Focus:



Steve Bramley Commercial Director

After nominating Jason Bennett of Projects to represent BRUSH Transformers on the Falcon News Team, he has kindly repaid the compliment by nominating yours truly as a candidate for "In Focus" – thanks Jason.

At the risk of hitting the future circulation figures of this Newsletter, I will tell you a little about myself. I began my career as a BRUSH apprentice based at the Swingbridge Road Training centre in 1976. If I remember

correctly, I was one of around one hundred and twenty, young, naïve and spotty recruits fresh from school. Hopefully some of you will remember me.

Having completed my Technical Apprenticeship, I was allocated to BRUSH Transformers and did the rounds of all the Production areas and offices, ending up as a Contracts/Tendering Engineer, eventually progressing to Contracts Manager. I held this position at the time of the closure of Hawker Siddeley Power Transformers and South Wales Transformers and was responsible for overseeing the completion of their contracts during this period. A difficult process, but an important part of my career development.

During this period I picked up responsibility for Aftermarket in BRUSH Transformers, progressing to Commercial Manager and finally to Commercial Director with responsibility for Sales, Tendering, Contracts and Aftermarket, and now as Commercial Director in BRUSH Turbogenerators where I am once again on a steep learning curve and very grateful for the assistance that I am receiving.

Away from work, I am married to Linda and have two daughters, Kirsty and Kelly aged 21 and 18. I have always been keen on sport but having reached the 'big 50' I have had to rein back my participation in the more active sports, although I still manage several trips to the gym most weeks. Fishing has always been a passion for me and I still manage to get to the riverbank for a few hours at the weekend. What better way to escape a house full of women!

To summarise, I have seen a lot of changes in my time at BRUSH. Changes in ownership from Hawker Siddeley through BTR, FKI and now to Melrose, with all the changes in strategy, management styles etc that go with this and consider myself fortunate to have had the opportunities that I have had along the way.

Hopefully, those of you are starting along your career path can take some inspiration from this and aspire to maximise your potential. It just goes to show that a good work ethic, a passion for customer service and the resolution to embrace change and to accept a few knock-backs, goes a long way.

Rob's new appointment to chair the IEEE PES excitation systems subcommittee...

The USA based IEEE PES Excitation Systems Subcommittee has appointed Robert Thornton-Jones as chair from January 2011. Rob has participated as a member of this international subcommittee for a number of years, presenting papers on excitation systems, organising the IEEE power system stability tutorial and editing the IEEE excitation systems modelling standard.

BRUSH is keen to support Rob with these activities at the IEEE, which is regarded as the most important organisation worldwide for setting of standards for electrical engineering. The activities of the subcommittee help to educate



customers and end users on some of the more technical aspects of excitation systems and power system stability and Rob's involvement helps to keep BRUSH up to date on changes to regulatory requirements and the market for generator control products.



Switchgear Reunion

In early October a small reunion was held at the BRUSH Club for all ex-employees of BRUSH Switchgear. It is hoped that this could become a biannual event, so if you are an ex-employee please email Bryan Martin (bryan_g_martin@hotmail.com) so you can be added to the invite list for the next event.



BRUSH Ljungström Turbine

If you're at a loss one weekend, why not visit Abbey Pumping Station in Leicester? It is now the Leicester Museum of Science and Technology Centre, displaying Leicestershire's industrial, technological and scientific heritage.

Opened in 1891, the Abbey Pumping Station pumped Leicester's sewage to the treatment works at Beaumont Leys. The grand Victorian building and beautifully decorated beam engines were a cause of great civic pride. When it closed in 1964, the site was preserved because of the four magnificent beam steam engines that were used to pump the sewage.

Also on display is a revolutionary steam turbine made by the then BRUSH Electrical Engineering Company. This type of turbine was designed by the Swedish engineer Dr Fredrik Ljungström and was built by BRUSH, under license to the Ljungström Company, between 1914 and the late 1950s. Pressurized steam, injected into the turbine casing, turned two sets of turbine blades, each of which turned a generator producing electricity. Hence, each turbine drove two generators, one at each end.

The turbine now in the Leicester Museum of Science and Technology Centre, one of the first

built by BRUSH, was installed in 1914 at the Loughborough Power Station, which was where the Rushes Shopping Centre is now situated, and was in use until 1960.

Tony Fogwill can remember it being on the BRUSH site near the training centre before it was donated to the museum, and had this to say about it: *"When I was an apprentice in the 1960s, the turbine sat out in all weathers on a patch of ground beside a path leading from the training centre towards the factory. In those days, the training centre was where EDS Distribution Services is now situated and we walked past the turbine every day on our way to the canteen. The Service Department, as Aftermarket was then called, made a few attempts to cannibalize it for spare parts but with little success. In the early days of turbine production, each component was craftsman fitted to the next, which made interchangeability impossible. We have at least two legacies from the Ljungström turbines of which most people are probably unaware.*

24 Shop, which most of us can only ever remember being the DAX final assembly shop, was originally built as a final assembly and

test area for Ljungström turbines and used to be called the Turbine Shop.

The early turbines used generators of Ljungström design but the later, larger units used a BRUSH design designated DA, which stood for double alternator (one at each end). When we designed our first 2-pole generator for gas turbine drive, the design was based on the DA range and a decision was taken to retain the letters DA in the frame size to show continuity. An X was added, for one of two possible reasons. Either it indicated that the generator would be driven by an axial flow gas turbine rather than a radial flow Ljungström steam turbine or, rather than being the letter X, it was a cross to cross out the D as the turbine was now single end drive. Whatever the reason, it gave us the word DAX, now one of the most powerful brand names in our industry."

Abbey Pumping station is situated adjacent to the National Space Centre, the two attractions telling the story of over 200 years of science and technology from the early days of steam and industry to space exploration of today. Directions, opening times and further information can be found at www.leicester.gov.uk/museums

BRUSH around the globe



128 years in business for BRUSH HMA

On the 1st November 2010, BRUSH HMA celebrated its 128th anniversary as a company. To commemorate the occasion BRUSH has created a dedicated museum and completed a make-over of the main reception area. The museum was officially opened by Mr. Steenbeek, M.D of BRUSH HMA together with Mr. Tijm, a BRUSH electrical engineer who had devoted a lot of his own time to researching the BRUSH archives and information sources to provide material and documents.

The company's history can be traced from 1st November 1882, when founded under the name Smit Slikkerveer. The historical journey can be followed by means of photographs, original documents, mock-ups, a multimedia touch screen and some original manufactured machines.

A selected group of people who have a special relationship with BRUSH were invited for the occasion, specifically descendants of the original founders of the company, those people that donated items and that had made the opening of the history room possible. Past and present employees were also invited to the ceremony, and they clearly expressed enthusiasm and appreciation about this initiative.

Next time you are visiting BRUSH HMA please allow some extra time to visit our museum to see a glimpse of our past and to take the journey back in time to explore our heritage that we are so proud of.

Ed Loses his fight with Cancer

It is with sad regret that we report on the passing of our colleague Edward J Sisson on the 30th October 2010 age 42. Ed was General Manager of Generator and Motor Services (GMS) in Pittsburgh for the last 10 years, where his work brought him praise and recognition from his colleagues and customers. He leaves behind a wife Roxanne, four sons, Conner, Colton, Callen, Cooper and a daughter Maelyn. Our thoughts are with his family at this sad time. BRUSH were represented at the Funeral by Martyn Vaughan.

Showing Off!



Power Gen Asia, Singapore November 2 – 4, 2010

This year, the Power-Gen Asia conference and exhibition was held in the new Marina Bay Sands Exhibition Centre in Singapore on 2 – 4 November 2010, with 166 exhibitors.

Singapore's recent strong recovery has seen electricity demand increase sharply, where average demand in the first half of 2010 increased by approximately 11 per cent compared to last year. Demand is also expected to increase by an expected 3 per cent per annum until 2018.

BRUSH had visits from all our Asian customers. The BRUSH personnel visited all our customers to gain information on the current power market situation and potential orders for the future. Mark Alvey, Sales Manager for the area, said, "We received 54 direct visits from customers with requests for generators, transformers and aftermarket. Tuas Power in Singapore visited the stand as they are looking forward to receiving a BRUSH generator that is currently being designed and will be manufactured in the Loughborough factory next year for Mitsubishi Steam Turbines." Next year, the exhibition will be in Kuala Lumpur, Malaysia, where we have our Far East sales office.

BRUSH Sponsors Homefield College

Homefield College is a small, highly structured college based in Sibley, which specialises in further education for students with autistic spectrum conditions, communication difficulties or learning disabilities.

The college has invested time and money to develop realistic work based environments

within the general community, settings such as public transport, bars and restaurants, barbers/hairdressers, libraries, public parks leisure and outdoor pursuit centres etc. In addition the college has successfully operated a horticulture enterprise for a number of years but the facilities now need upgrading and repair. The college contacted BRUSH to see

if we could assist and BRUSH have agreed to cover the cost of reskinning and replacing the doors of the poly tunnels and also to replace the shed roof.

Further information can be found out about the wonderful work of the college from their website www.homefieldcollege.ac.uk

A BRUSH with the past!

PETER M. HART

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EMAIL: COMPERTA3@BIGPOND.COM

Mr Derek Adams
The Editor
BRUSH FALCON NEWS
falcon.news@brush.eu

Dear Mr Adams,

AVIATION HISTORY LOUGHBOROUGH BRUSH FACTORY

Perhaps someone can help me with details regarding the attached photograph.

As a child in Leicester in the 1940s, I was given this photo and told that, "my grandfather (Ernest Talbot Sebastian Frances HART) was the gentleman, fifth from the left and that he had been involved in making the propeller for this aeroplane at the Loughborough BRUSH Works during the Great War".

I knew that my grandfather had been a cabinetmaker living in Loughborough or Leicester; that he had joined the Royal Flying Corps and died shortly after the war, but that was about all.

To be truthful, as a child, I naively thought that he made brushes, ie. sweeping brushes. In later years, realising that the BRUSH factory made engineering components, I presumed he made armature brushes. Not being completely stupid, in more recent years the penny dropped and I made the connection with 'BRUSH' the family named company.

Can anyone provide me with more information about this photograph?

For example:

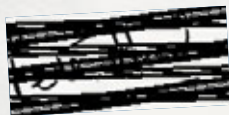
Is this photograph connected with BRUSH;
Was Ernest Hart an employee;
What was the occasion;
What is the type and make of aircraft;
Who are the personnel in the picture;
Were any other pictures taken; and
Any other information that comes to hand?

Can you also advise what publications have been printed about the Loughborough BRUSH Factory and if any are still in print and available through you, their price and availability.

I know this is asking a lot, but I would like to find out what I can about the Loughborough BRUSH Factory and my Grandfather and you are about the only people who can tell me.

Hoping you can assist me in this matter,

Yours sincerely,



Peter M. Hart
11 October 2010



Can you help?

If you have any
information regarding
this photo please contact

Derek Adams on

01509 612907

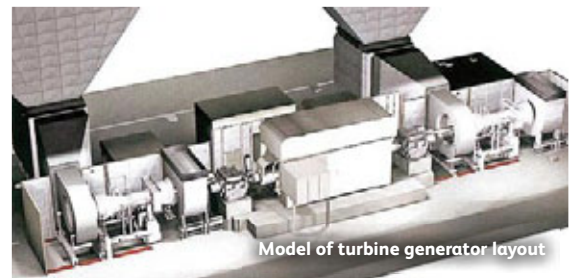
falcon.news@brush.eu



BRUSH DAX generator being installed at site



Award presentation in E-on Benelux. Left to right:
 Bob Brown – Director, Energy Services Inc.
 Frans Geers – Director Generation E-on Benelux
 Brian Nessen – Group Publishing Director
 (POWER Magazine), Trade Fair Group



Model of turbine generator layout

BRUSH DAX part of award winning installation in Den Haag – The Netherlands

When E-on, the major utility company, decided to refurbish the Den Haag (The Hague) power plant in 2006, they developed a novel engineering solution with a key component – the BRUSH DAX generator. The historical power plant, originally built in 1906, has been updated every few decades but has remained in continuous operation, providing electric power and district heating to the city centre, including to many international and government operations, including the World Court. Poor performance from turbine generators installed in 1983 and a community desire for “carbon neutral” energy production resulted in the project to re-engine the plant to gain reliability and efficiencies that modern equipment can provide.

Selection of a double ended drive BDAX 8-445ERH water cooled turbogenerator, with

line and neutral cubicles and a control/protection panel, was a critical part of the custom project solution.

POWER magazine selected the E-on Den Haag Project as recipient of their 2009 Marmaduke Award for Excellence in Operations & Maintenance and, in June 2010, the award was presented to E-on Benelux at their local headquarters.

The turnkey contract for the new gas turbines packages was awarded to Energy Services Inc. (Farmington, CT, USA) who, working with BRUSH, decided a double ended generator would be the best fit for the confined space vacated by the existing turbines. Driven each end by General Electric LM6000PD aero derivative gas turbines, the new BRUSH DAX generator, along with new filter houses and controls, was installed and commissioned, reaching full power towards the end of 2007.

Either or both of the turbines can be operated, giving the new installation a wide range of output flexibility to match the city power and heating needs. The total E-on Benelux project, including preservation of the historic building exterior, cost US \$98M to complete.

Energy Services Inc. (ESI) completed the tear out of existing machinery, installation of new turbines and start up within seven months of the start of major works. The generator was the heaviest single piece of new machinery installed in the upgrade.

The general layout of the new turbines was extensively modelled in advance to check fit and clearances with the existing building and access for the new parts. In diagram C the double ended generator can be seen coupled via gearbox and clutch assemblies to the two GE gas turbines.

Our Man in India



Sunina Kumari
(President of the
Bowling Federation
of India) and myself

After Graham Gibbins success as an international Umpire at the 8 Nations Test earlier in the year. Graham was invited to umpire in the Commonwealth Games in Delhi.

Graham told Falcon News that after a gruelling overnight flight and serious delays at Indian immigration he arrived at his hotel – The Radisson Marina in Conourt Place, Delhi. Its claim to fame being the hotel that Ghandi’s assassin stayed in the night before he shot and killed him, a comforting thought. The hotel had been fully modernised inside, it was really nice and had all mod cons that you would expect from an international hotel, but the outside was still like a building site with a huge concrete beam placed in front of the entrance doorway which you had to step over each time you either entered or left the hotel. Graham went on to say,

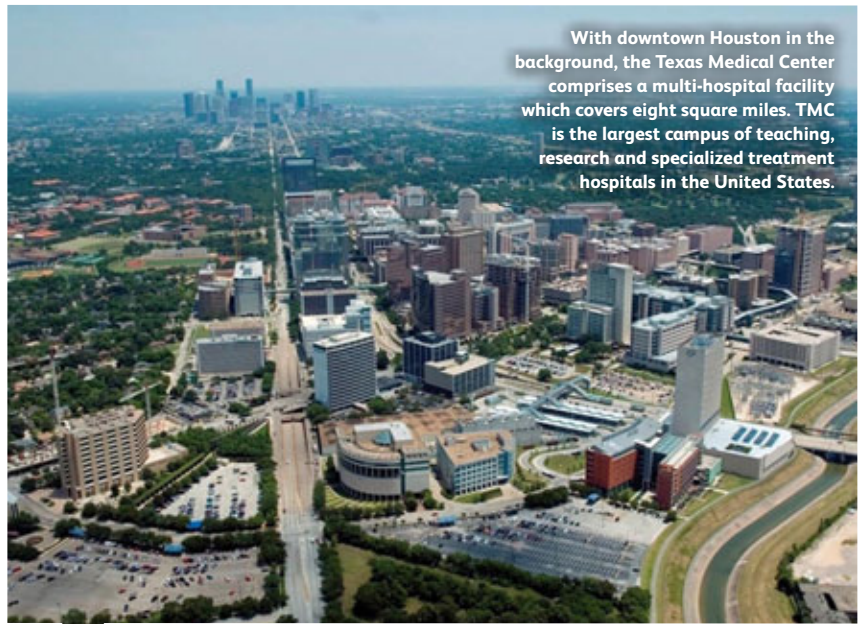
“The athletes village that was in all the papers and on TV was not as bad as it was portrayed, according to our England bowls squad. When they arrived they feared the worst, but all that was needed on their arrival was a tidy up which they did, only to find the very next day the cleaners came in and cleaned up again. Our uniforms never really worked, we were asked to send our sizes before we left but when we collected our uniforms nothing seemed to fit and till this day some of the items have still not arrived.

We were given tickets for the opening ceremony and that was absolutely fantastic, something I will never forget, Prince Charles opened the Games on behalf of the Queen. I never got to meet him, but did get to say hello to Prince Edward when he visited the bowls venue and came to my green when I was umpiring it. Our schedule was not for the faint hearted. We were up at 6am and sometimes did not get back to the hotel till 10-45pm, but all in all its an experience I would love to have again, if lucky enough to be invited to do the games again. Next time they are in Glasgow in 2014.”

Graham finished telling me that England picked up medals in 5 out of the 6 categories giving us the top spot in the medals table.

England ladies won 2 golds and 1 bronze medal, they achieved gold in both the singles and pairs, and bronze in the triples.

The men won silver in the pairs and bronze in the triples, and just failed to get a bronze in the singles.



With downtown Houston in the background, the Texas Medical Center comprises a multi-hospital facility which covers eight square miles. TMC is the largest campus of teaching, research and specialized treatment hospitals in the United States.

Texas Medical Center

An update from our Houston correspondent Derek King

A combined heat and power (CHP) plant that will provide reliable and efficient steam, chilled water, and electricity to the Texas Medical Center in Houston was featured in our very first edition. The plant is now fully operational and Derek King, our man in Houston, reports on the dedication ceremony.

The Thermal Energy Corporation (TECO) unveiled its new 48 MW combined heat and power (CHP) plant at a dedication ceremony in Houston, Texas, earlier this month. TECO President and CEO Steve Swinson was joined by numerous Texas Medical Center (TMC) executives and officials from the US Department of Energy.

TECO is the largest campus district chilled water system in the country and provides district heating and cooling to 18 institutions in TMC, the world’s largest medical center. The plant’s dedication marks the completion of the first phase of an overall 100 MW project using CHP, for which TECO was awarded \$10 million in federal stimulus funds. The heart of the facility is a General Electric LM6000 gas turbine driving a BRUSHBDAX 7-290 generator.

“When efficiency, economics, the environment, and reliability are considered, the most effective way to achieve them is with CHP. With the

addition of TECO’s first phase of the CHP Project, our thermal energy production will be some of the most cost-effective and efficient in the country,” said TECO President and CEO Steve Swinson. *“The critical-mission institutions that TECO serves in the Texas Medical Center demand cost-effective and reliable energy service. Failure is not an option for TECO.”*

The new CHP system will improve energy security for a large portion of the TMC. Numerous natural disasters in the greater Houston and Gulf Coast region in recent years have knocked out power in the region, even disrupting services by local critical infrastructure such as hospitals. TECO’s investment in CHP ensures the TMC remains operational regardless of weather conditions. In addition to energy security, TECO’s CHP system will also improve the environment by reducing emissions. Nitrous oxide (NOx) will be reduced by 302 tons per year, carbon dioxide (CO²) by 305,000 tons per year and sulphur dioxide (SO²) by 83,000 tons per year.

Focus on:

Indian Weddings



India is a very colourful and diverse country. When it comes to celebration it's done very passionately and wholeheartedly. When it comes to something as sacred as a wedding then no stone is left unturned. What is so special about the so-called Indian wedding? With every coming year it's getting larger, and more luxurious.

Tying the knot also symbolizes that the two are tied for a common purpose. It is expected that in pursuing the common cause each shall supplement the efforts of the other. Therefore, tying the knot symbolizes an irrevocable relationship.

Before tying the knot, the parents of the bride formally hand her over in marriage to the groom. This is known as kanya daan.

When tying the knot it is customary to tie a coin, flower, turmeric, durva grass and rice within the knot. Each of these has a particular significance.

A coin is symbolic of money. Tying it in the knot signifies that neither shall be independent in controlling the family finances. It will be a joint responsibility and both shall have equal control over money.

A flower symbolizes goodwill, contentment, joy, happiness and companionship. One must complement the other.

Turmeric has medicinal qualities. It is symbolic of a teacher. It also symbolizes the need for the physical and emotional health of each partner. One should not let down or hurt the other.

Durva grass is evergreen and symbolic of everlasting love and care. Durva grass never dries up. Even when it looks dried, a little

water turns it green. In the same way, there must be great love and intimacy between the couple.

Rice is symbolic of Annapurna, a form of Durga. She is worshipped for her power of giving food. Rice also symbolizes that both will consume the food that is earned and brought home, after it is equally shared. It also reminds one of the responsibilities towards the community where one lives. Rice motivates one to follow a common path of mutual welfare.

Even after the wedding, whenever the couple sit together in a religious ceremony, it is customary that a knot is tied between them. This is symbolic of the couple being a single entity, not two separate individuals.

The ceremony has a definite purpose. When two people meet they get to know each other. When they walk together they inquire about each other and make firm commitments. The seven steps are symbolic of walking together by a couple. Since Saptapadi is a requirement of Hindu law for a marriage to be valid, it is symbolized by making seven lines or mounds of rice grains or of turmeric powder. Each line represents a step. With each step the couple dismantles one line with their feet. A particular aspect of life is covered with each step.

The Seven Steps

Step 1: This step refers to the availability of ample food in the home and eating and living together.

Step 2: This relates to physical work around the house. Physical effort and co-operation in keeping the family happy is important. Mutual agreement and consultation promote physical and emotional well-being and confidence.

Step 3: It relates to mutual respect and prosperity. Both must co-operate with each other to provide the family needs. This ensures there is enough for all.

Step 4: The fourth step relates to happiness. Both must understand each other, be caring, pray together and enjoy each other's company.

Step 5: The fifth relates to personal duties and responsibilities. This includes the welfare of family members, dependents, animals and pets. These needs must be met throughout life. This can be difficult sometimes. Yet there is the need for happiness and contentment for all.

Step 6: The sixth step related to mutual respect for each other's families. Personal misunderstanding must be overcome and families accepted as they are. The couple must find marital happiness together through an open mind.

Step 7: The seventh related to mutual friendship between the couple. This includes kindness, obedience and affectionate behavior towards each other. It also includes the need for forgiving wrong actions to ensure a happy and peaceful relationship between the couple. They must live together to raise a family and gain a standing in society.

Neil qualifies two dogs for Agility Championship Class at Crufts 2011



Neil Moir who works in the Stator Winding area has beaten the odds by grabbing not one but two places in the Crufts Championship.

Beating some of the best small dogs in the country, Neil first won a Challenge Certificate with Megan in May 2010 at the Woodside show in Scotland. At the time he was elated as this is often a once in a life time opportunity, little did he realise he would then gain another Challenge Certificate with Jasper at the East Lothian Show in July 2010.

Neil has been competing in Agility with his two Jack Russell Terriers, 8 year old Megan and 4 year old Jasper, for 6 years.

Dogs cannot start to compete in Kennel Club Agility shows until they are 18 months old. Both Megan and Jasper have exhibited natural talent at Small Agility. Megan did not start to compete until she was two and a half. She won up through the grades from 1 – 7 in just 3 years. Jasper started competing at 18 months old and gained all his required wins to take him to grade 7 by the time he was 2!

Once in grade 7 dogs are eligible to compete in Championship classes to win Challenge Certificates. These classes consist of an Agility round and a Jumping round with the top 50% progressing through to the final.

Winning 3 of these final rounds entitles the dog to be classed as an Agility Champion. Winning a single Championship final entitles the dog and handler to compete at Crufts the following year in the Championship class. This is held on Sunday before best in show and features the UK's elite dogs in each height category. A maximum of 12 partnerships can qualify in the Small Height each year.

Puzzle Corner

Sudoku challenge!

Instructions

Your task is to fill in the blank squares. There's only one rule:

- Each row, column and box must end up containing all of the numbers from 1 to 9.

This rule has a side-effect:

- Each number can only appear once in a row, column or box.

	1			3	4			
9	3			5		4		2
		8	6			7	1	
	2	7			8		3	5
			5		3			
3	6		2			8	4	
	5	4			9	2		
2		9		8			5	1
			1	2			7	

Tea Break Trivia Answers 1. Nine 2. 1957 3. Oliver Cromwell 4. Nine Ladies Dancing 5. 1223 6. John Calcott Horsely 7. Yule is an old word for the winter festival, dating back to Viking times 8. Norway 9. Robins 10. Traditionally, this was the day to open the "Christmas Box"

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