HACKBRIDGE & HEWITTIC ELECTRIC CO LTD.

This is the first of two articles of general interest relating to the history and product developement of the above company, who were situated at Hersham, Walton-on-Thames Surrey. The company merged with English Electric in 1965 to form a strong and successful partnership in the large transformer market, at the suggestion of the Central Electricity Board. With the developement of 220 Kv and 400 Kv systems there were too many manufacturers with expensive designs, testing stations and impulse laboratories, etc and rationalisation of acceptable standards was essential. At the same time the rectifier interests were combined to form a new trading company - English Electric Hewittic Rectifiers Ltd. Following the acquisition by the General Electric Co Ltd, a management decision was made resulting in the rectifier manufacture being concentrated at Stafford at the end of 1971, followed by the transformers at Stafford and Thanet in 1972. The factory was demolished in 1978 and the site was eventually acquired by Air Products Ltd whose new and impressive office building now is a major asset to Hersham.

The history of the site goes back many centuries when it was a tenant farm house with 50 acres of land. In 1839 records show a substantial Victorian house named Hersham Lodge standing in some seven acres of garden and parkland. In the early 1900s this was owned by Henry Brooks a prosperous London business man in the cotton industry (see photograph)

During the period of the first world war a number of small assembly plants were set up near to the Brooklands race track at Weybridge, where now British Aerospace operate and have recently been involved in the Concorde Project. One such assembly plant was owned by A.B.C. Motors (A B C stood

for all British company) who made engines for motor cycles then motor cars then finally they developed the "Dragonfly" aero engine, so obtaining large Government contracts. In 1914 they took industrial premises opposite Hersham Lodge and additionally moved to Hersham Lodge in 1920, on the grounds of which they built a substantial workshop some 250 x 150 feet with the intention of expanding large scale production of A B C cars.

Unfortunately they ran into difficulties both financial and with the supply of component parts, so that within 18 months there were prospects of bankruptcy, and they returned to their site opposite Hersham Lodge.

In 1923, therefore, The Hackbridge Company bought the site and in the following year were joined by The Hewittic Company. These companies had already been working well together because following the war there was a rapidly expanding electricity supply network system all over the country in both A C and D C fields. all requiring new plant.

The Hackbridge Company had been established at Hackbridge in Surrey in 1919 and when they moved to Hersham, The transformers interests went with the factory. continued making Hackbridge Cables and Boyce Capacitors, at the same site but the Companies were separated.

The Hewittic Company had been set up in 1906 in premises at York Way, Kings Cross London which in 1924 was sold to Westinghouse Brake & Signal Co. Hewittic was started to exploit the considerable talents of an inventor Peter Cooper-Hewitt who made the first mercury vapour lamp and glass bulb rectifiers. He also had a specialty a "high voltage transformer".

These two companies therefore shared the site comprising Hersham Lodge for office administration and workshops behind, both of which continued to have extensions added over the years until at the closure spaces for car parking were at a premium. Originally the two companies shared the site but they each had a completely separate organisation both in administration and manufacture and there was a dividing wall

NOT TRUE

them.

down the main factory separating - known to all inmates
They (A) continued to work well together and were eventually
joined together as Hackbridge & Hewittic Electric as the mid
~~fifties~~ forties formally as one company although they
had operated that way for a decade. For the people
working within the company, probably at its peak 1000 on
transformers and 500 on rectifiers, they were proud to be
Hackbridge or Hewittic and there was always a healthy
~~rivalry~~ between them.

(B) In the early ~~post 1914-1918 war~~ inter-war years there had been
unemployment problems in Hersham to such an extent that
outside labour had to be called in and many of the skilled
people such as winders, erectors, glass blowers, fitters,
wiremen etc came from factories in the London area. The two
companies had to appeal to the local Urban District Council
to provide additional housing and as a result some excellent
estates were built near the factory. Private housing also
flourished so that the village of Hersham expanded into an
Urban area sitting between Walton and Esher.

Quite early on the factory was extended, the roof raised and
an overhead 20 ton crane installed. Over the years many new
areas were developed to keep the company in the forefront
as one of the major suppliers in this country of transformers
and rectifiers. A large 100 ton bay was built for the
assembly, ~~and~~ processing and testing of large 132, 220 and 440kV
transformers, including very substantial test plant with a
3·3 mV impulse generator. Two 50 ton cranes capable of
operating in tandem were used plus hydraulically controlled
bogies for moving around large core and coil assemblies.
Many firsts were established in the transformer field and the
quality of designs, manufacture and process control were of
a high standard such that the name HACKBRIDGE became
well known all over the world and respected.

In the meantime HEWITTIC had also gathered a strong

(A) They continued to work well together and eventually, in the mid nineteen forties, were formally joined together as one company – the H&MEC.

(B) When the firm moved to Horsham it was but a small village, suitable labour was in short supply, many employees had to travel long distances to get to the works.

reputation in the DC conversion field but still continuing to use glass bulbs in various formations, including 2, 3, 6 and 12 arm bulbs. Other major manufacturers had concentrated on steel tank envelopes, firstly pumped to maintain the vacuum, and later exhausting pumps, but the problem of obtaining an effective seal was easier to get with glass. The facilities for producing mercury vapour lamps and multi-arm bulbs grew rapidly along with testing capability. Development to meet the steel tank challenge was never ending and many ingenious arrangements were marketed

In the 1930s demand slackened as the national electricity networks were completed but was revived by the special demands during the last war, and was for a time afterwards sustained by a crowded order book for large transformers at home plus orders from overseas when electricity supplies were being installed. The C.E.G.B. were booking orders for large transformers for supply up to 5 yrs ahead.

In the early 1950s a new group was formed named Combined Electrical Manufacturers to put together composite bids on projects which added much to the capability of Hackbridge & Hewittic. The members were

New Switchgear Construction Co, Sutton Surrey - HT Switchgear
Kastet Switchgear Co Ltd, Sutton, Surrey - LT Switchgear
Switchgear & Cowans Ltd. Manchester - AC Switchgear up to 33 KV
Bertram Thomas (Engineers) Ltd Manchester - DC Switchgear up to 3 KV

Although these companies still continued to operate independantly the overall control and co-ordination for product development and testing was carried out at Hersham. This enabled the group to obtain some very important contracts in the rail traction power supply area putting them in the forefront with major companies.

At about the same period another manufacturing unit was opened at Broadstairs, in the Isle of Thanet, for the production of small rectifiers up to 100 KW and small transformers up to

500 KVA, based initially on design and drawing work at Hersham. The intention ~~was~~ being to ~~provide~~ allow more space at Hersham for larger transformers and rectifiers. After 18 months the Thanet unit began building up its own design and DO team enabling them to be self supporting, but ~~their~~ rectifier work was more difficult to control without help from Hersham. Accordingly rectifiers returned to Hersham and transformers were expanded up to about 2 MVA and 11 KV.

This has now brought the story up to the 1960's and as mentioned earlier the merger with English Electric. This rationalised the transformer activities, especially for large CEGB units, giving them the designs they favoured for particular installations. (at that time heavy loads ~~was~~ were a major problem on the roads). At the same time the rectifier division went from strength to strength under the guidance of John Bond as Managing Director of E.E.H.R. Of course by now solid state rectifiers were in use and Hersham ~~were~~ was producing germanium and silicon diodes in bulk up to 125 A 2000 V. This work was transferred to a joint company set up by Westinghouse and English Electric called WEBEES at Chippenham

WEEBES?

Thus is the history of a top class British company that was swept away with the march of time. ~~But~~ Fortunately many of the original personnel meet at least annually to recite tales of "the good old days".

In the next instalment the product development will be discussed showing the very basis on which many of todays problems and resolutions are made. ?

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