

DUPORT STEEL

A Brief History By the late E.J.McVicar (1922 – 2011)



A Bônau Cabbage Patch Supplement

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Iron making at Llanelli can certainly be traced back to 1866 when the Old Castle Iron and Tinplate Company was formed. Two mills were erected on the site of some earlier fortifications called Hen Castell from which the works derived its name. For twenty years or more the Company made its own iron in puddling furnaces and charcoal iron in the refineries and forges, turning it into various grades of tinplate bars. The works were expanded in 1876 to four mills and again in 1893 to 11 mills.



Above: The Author

Forges. Steel came into general use since it was more economical and of superior

metallurgical properties in tinplate manufacture and stamping purposes. The rapid development of the tinplate industry was anticipated and capital was raised for the construction of a steelworks adjoining the Old Castle Works.

This was an obvious choice since it provided the factors needed for the functional and economic well being of the industry. They were coal, water, availability of markets and a plentiful supply of skilled labour. The Old Castle Tinplate Company became one of the principal shareholders. In 1897 the Company started with the construction of four open hearth furnaces each of 25 ton capacity together with a 28" steel Rolling Mill driven by a steam engine manufactured and built by Richard Nevill and Company of Llanelli.

In 1898 the Llanelli Steel Company was registered with a share capital of £75,000. Shareholders were the Briton Ferry Steel Company, the Old Castle Tinplate Company and the Western Tinplate Company. The new company showed great initiative in ordering from the Wellman Company two 3 ton capacity open hearth charging machines - the first to be installed in the British iron and steel industry and remained in service for 50 years.



Men of "Steel" (The only one we recognise is Bob Davies [centre] – Stuart Messer's grandfather).

Two furnaces were added in the early 1900 period. Bays were constructed for the operation of overhead magnet cranes to facilitate the loading of charging boxes with scrap/pig iron from the railway wagons. Hand charging had now been completely superseded by the introduction of the charging boxes to the furnace by small steam locomotives. Three gantries were put up in the casting bay, ladle carriages were pulled by steam cranes for teeming direct poured ingot into paired moulds in sunken pits. The Company continued to expand and in 1907 was registered with a share capital of £250,000 and, subsequently, £515,000 as The Llanelli Steel Company (1907) Limited. With the increase in share capital a further ten tinplate companies became shareholders, Dafen, Eagle, Ferry, Gyros, Melyn, Old Lodge, John Player and subsequently, Clayton, St Davids and Teilo Tinplate Company. Another similar rolling mill was installed in 1908. A further six furnaces were constructed and brought into production from 1908-1912. On the week ending 29th June 1912 on the introduction of the 8 hour shift the record tonnage for the 12 furnaces operating was 4,307 tons. This was the occasion when all the furnaces were in operation and it was a tremendous achievement. The 1914-1918 war saw the works under national direction and the No 1 Mill converted to a billet mill. This was

managed by representatives of the French Steel Commission who supervised and controlled production of shell steel for the French Government.

Post war saw the reversion to production of tinplate and sheet bar quality steel - this fluctuated a great deal due to trade conditions and raw material shortages. The Directorate of the Company commissioned in 1921 the building of the Llanelli Foundry and Engineering Company Limited, principally to supply the needs of the steelworks ingot moulds and engineering requirements. It was closed in June 1965 when work was centralised at Baglan Foundry, Neath. In 1926 operations were commenced to install a Morgan Continuous Finishing Mill for rolling bar/billets, this mill operated until 1953 when a new mill was erected.

In 1928 the American Government introduced the McKinley tariff - this resulted in a trade depression in the tinplate industry throughout South Wales until nearly 1932. During the depression, with considerable courage and forethought, the Directors commissioned the building of the Llanelli Sheetworks, which was built by staff and key workers of the steelworks. It commenced production early in 1932 and remained in production until 1964, when hand mills became uneconomic. The steelworks supplied the plate, which amounted to an average of 550 tons per week for the six mills and the galvanising sheet was principally exported to Africa and Australia. In 1934 the shareholders purchased from the Briton Ferry Steel Company their interest in the company.

In 1938 all ten furnaces were of 50 ton capacity, six of them being fired from four Morgan Gas Products built during 1937/8. With the outbreak of war in 1939, output was directed toward the war effort. Number 1 Mill was refitted for production of billets for shell steel and for the engineering industry. The output at the Steelworks was entirely devoted to the production of Anderson shelters. Post war the works returned to its normal traditional production outlets. These were gradually being reduced because of the formation of the Steel Company of Wales and the closing down of the local

tinplate works. Production was then switched to the general engineering markets. During 1948 a furnace was converted to oil firing on a trial basis. results showed it was much more economic, more superior in its control and application and with a considerable reduction in manpower, reducing tap/tap time to ten hours. Unfortunately this meant that collieries in the area, which supplied over 4,000 tons of coal per week, were obliged to close.

The post war years saw a considerable change in the industrial scene, both industrially and from a sociological aspect. Young men who had started in the steel and tinplate industry at the turn of the century were now retiring at the age of 70. The Welsh language had been predominantly the spoken word but this was now gradually changing.



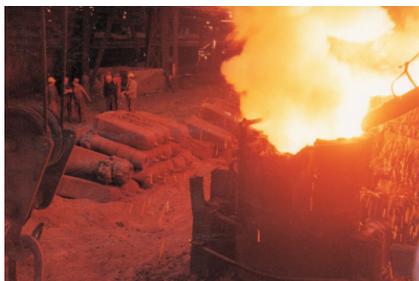
(Above: Inside Llanelli Steel)

In May 1949, under nationalisation, the Ministry of Supply approved the erection of a large modern mill for the rolling of bars, billets and slabs at a cost of three and three-quarter million pounds. The Roughing Mill built by Brightside Foundry and Engineering Company operated 35" diameter rolls powered by a 4,000 HP motor. A six stand finishing mill was supplied by Loewy Ltd. Seven 40 ton capacity oil-fired ingot soaking pits of circular design were built and installed by Salem Company. At the time of closure in 1981 there were 17 pits operating, all had been converted to natural gas firing. This new mill was certainly one of the greatest contributory factors in the survival during the difficult years of 1950-60.

On week ending 28th May 1960, working a continuous week, the J furnace was the first

furnace to produce over 1,000 tons. The furnace then broke this record with 1023 tons on the normal week of 17 shifts. The melting shop worked a 21 or 17-shift week and the Rolling mill generally a 17 shift with a total works compliment of 1800-2000 personnel. Production of steel for the forging and engineering markets commenced and there was a major change in steel making casting and rolling practices. Extensive equipment and structural changes in the mechanics of steel making were introduced to meet the demand of producing 5,000 tons per week.

In 1957, the Duport Group, whose policy was one of investment and expansion, acquired the Briton Ferry Steel Company and in 1960, following the denationalisation of steel, bought Llanelli Steel Company (1907) Limited, bringing the two companies together again after the separation of 1934. This was an enormous advantage as the experience of the Briton Ferry works in the production of Forging/Special Steels and the market outlet in the Duport Groups forging and re-rolling works were made available to the Llanelli works. The Llanelli Rolling Mill was newer and had better development potential than the Briton Ferry mill. The initial step was to invest about £4



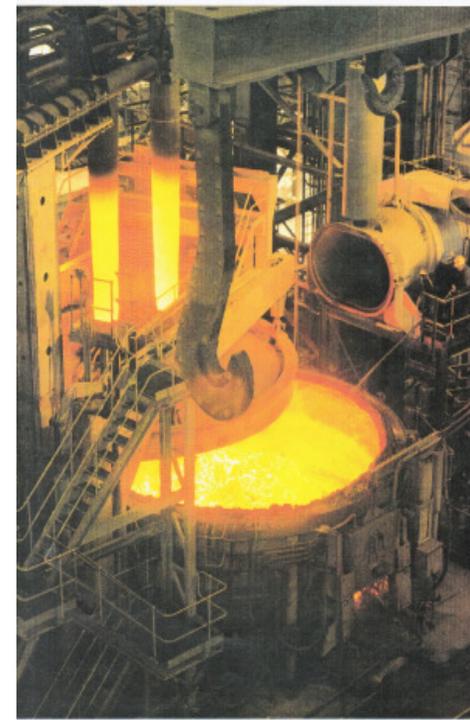
(Above: The Final Tap 15th April 1978)

millions, mainly in the expansion of the Llanelli Mill increasing the capacity from 6,000 to 10,000 tons per week. In 1971 the Briton Ferry mill was closed, the Briton Ferry and Llanelli melting shops concentrating their output to satisfy the need of the Llanelli Mill. At Llanelli the furnaces had been reduced to eight and capacity increased to 75 tons with a maximum of 5 furnaces working.

The Duport Board decided to invest £35 million to build Electric Arc Furnaces in Llanelli to replace the Open Hearth Melting Shops at Briton Ferry and Llanelli, and to install the most modern high grade billet finishing plant in Europe. There was an objection to the building of the electric supply line on environmental grounds at the end of 1973 - however in June 1975, the secretary of State for Energy approved the scheme. The delay was not totally detrimental as technology was advancing quite rapidly and this influenced the change from the original plan of three 80 ton furnaces to two 125 ton furnaces. The first furnace was completed and commenced production in April 1978, when the Llanelli Open Hearth Shop closed. The start up was so successful, exceeding all expectations, that it went on to 15 shift production after two weeks. The Briton Ferry melting shop closed in November 1978, and the second Electric Arc Furnace began operation in January 1979. Production from the two furnaces was in the region of 10,000 tons on a 15 shift week.

Unfortunately, during 1980, the company encountered considerable difficulties and despite all the efforts that were made to overcome the situation there was no alternative other than to terminate steel production operations. The company went into liquidation in March 1981.

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(Above: Electric Arc Furnace)

(Special thanks to Mrs McVicar for the photos used in this article).

(Below: The site in more recent times).

